

Volume

#

R0290

INDEX DIAGRAM.

Township			S.		Range			W.	
26	26	26	25	25	24	24	24	23	23
22	86	86	74	64	55	46			
85	85		73	63	54	45			
21	84	84	72	63	53	45	45	44	
83	82		71	62	53				
20	82	82	70	61	52	43	43	42	
81	80		70	60	51				
19	79	79	69	59	50	41	41		
79	78		68	58	50				
19	77	77	67	57	49	40	40		
76	75		66	56	48				
18	75	75	65	55	47	38	38		

Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

WE, and
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

....., *Chainman.*

....., *Chainman.*

Subscribed and sworn to before me this }
day of , 189 }



WE, and
do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

....., *Moundman.*

....., *Moundman.*

Subscribed and sworn to before me this }
day of , 189 }



WE, and
do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

....., *Axman.*

....., *Axman.*

Subscribed and sworn to before me this }
day of , 189 }



I, , do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

....., *Flagman.*

Subscribed and sworn to before me this }
day of , 189 }



INDEX DIAGRAM.

Township		S.		Range		20 E.	
111	116	115	114	113	112	113	
	128	127					
102	6	193	5	180	4	170	3
						158	2
						148	1
	192	191	179	169	157	147	
101	7	190	8	178	9	168	10
						156	11
						146	12
	190	189	177	167	155	146	
100	18	188	17	176	16	166	15
						154	14
						145	13
	187	186	175	164	154	144	
99	10	186	20	175	21	163	22
						153	23
						143	24
	185	184	174	162	152	142	
99	30	183	29	173	28	161	27
						151	26
						142	25
	182	182	172	160	150	141	
98	31	181	32	171	33	158	34
						149	35
						140	36

Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

WE, and do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

....., Chairman.

....., Chairman.

Subscribed and sworn to before me this }
day of , 189 }



WE, and do solemnly swear that we will well and truly perform the duties of moudmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

....., Moudman.

....., Moudman.

Subscribed and sworn to before me this }
day of , 189 }



WE, and do solemnly swear that we will well and truly perform the duties of oxmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

....., Arman.

....., Arman.

Subscribed and sworn to before me this }
day of , 189 }



I, , do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

....., Flagman.

Subscribed and sworn to before me this }
day of , 189 }



INDEX DIAGRAM.

	Township		S.		Range		E.	
219	219	220	221	222	223	224		
210	6	281	5	270	4	262	3	252
281		280		269		261		251
209	7	279	8	268	9	260	10	251
279		278		267		259		250
208	18	277	17	267	16	258	15	250
277		276		266		257		249
208	19	275	20	265	21	256	22	248
274		274		265		255		247
207	30	273	29	264	28	254	27	247
272		272		263		254		246
206	31	271	32	263	33	253	34	245
								236
								36

Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

WE, and
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

....., Chainman.

....., Chainman.

Subscribed and sworn to before me this }
day of , 189 }



WE, and
do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

....., Moundman.

....., Moundman.

Subscribed and sworn to before me this }
day of , 189 }



WE, and
do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

....., Axman.

....., Axman.

Subscribed and sworn to before me this }
day of , 189 }



I, , do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

....., Flagman.

Subscribed and sworn to before me this }
day of , 189 }



INDEX DIAGRAM.

Township 20 S., Range 20 E.

6	5	4	3	2	1	297
7	8	9	10	11	12	296
18	17	16	15	14	13	295
19	20	21	22	23	24	294
30	29	28	27	26	25	293
31	32	33	34	35	36	292

Meanders Page

PRELIMINARY OATHS OF ASSISTANTS.

WE, and

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

....., Chainman.

....., Chainman.

Subscribed and sworn to before me this }
day of , 189 }



WE, and

do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

....., Moundman.

....., Moundman.

Subscribed and sworn to before me this }
day of , 189 }



WE, and

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

....., Axman.

....., Axman.

Subscribed and sworn to before me this }
day of , 189 }



I, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

....., Flagman.

Subscribed and sworn to before me this }
day of , 189 }



INDEX DIAGRAM.

Township X 0 S., Range 20 E.

<u>344</u>	<u>343</u>	<u>342</u>	<u>341</u>	<u>340</u>	<u>339</u>
<u>337</u> ⁶	<u>408</u> ⁵	<u>394</u> ⁴	<u>383</u> ³	<u>373</u> ²	<u>364</u> ¹
<u>407</u>	<u>407</u>	<u>393</u>	<u>382</u>	<u>372</u>	<u>363</u>
<u>337</u> ⁷	<u>406</u> ⁸	<u>392</u> ⁹	<u>381</u> ¹⁰	<u>371</u> ¹¹	<u>362</u> ¹²
<u>405</u>	<u>404</u>	<u>391</u>	<u>381</u>	<u>370</u>	<u>361</u>
<u>336</u> ¹⁸	<u>403</u> ¹⁷	<u>390</u> ¹⁶	<u>380</u> ¹⁵	<u>369</u> ¹⁴	<u>360</u> ¹³
<u>402</u>	<u>401</u>	<u>389</u>	<u>378</u>	<u>368</u>	<u>359</u>
<u>335</u> ¹⁹	<u>400</u> ²⁰	<u>388</u> ²¹	<u>377</u> ²²	<u>368</u> ²³	<u>359</u> ²⁴
<u>399</u>	<u>398</u>	<u>387</u>	<u>377</u>	<u>367</u>	<u>358</u>
<u>334</u> ³⁰	<u>397</u> ²⁹	<u>386</u> ²⁸	<u>376</u> ²⁷	<u>366</u> ²⁶	<u>357</u> ²⁵
<u>397</u>	<u>396</u>	<u>385</u>	<u>375</u>	<u>365</u>	<u>357</u>
<u>333</u> ³¹	<u>394</u> ³²	<u>384</u> ³³	<u>374</u> ³⁴	<u>365</u> ³⁵	<u>356</u> ³⁶
<u>321</u>	<u>331</u>	<u>329</u>	<u>328</u>	<u>327</u>	<u>326</u>

Meanders Page

PRELIMINARY OATHS OF ASSISTANTS.

WE, and do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

....., Chainman.

....., Chainman.

Subscribed and sworn to before me this }
day of , 189 }



WE, and do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

....., Moundman.

....., Moundman.

Subscribed and sworn to before me this }
day of , 189 }



WE, and do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

....., Axman.

....., Axman.

Subscribed and sworn to before me this }
day of , 189 }



I, , do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

....., Flagman.

Subscribed and sworn to before me this }
day of , 189 }



INDEX DIAGRAM.

Township 18 S., Range 20 E.

448	447	446	445	444	443
442 6 512 5 498 4 488 3 478 2 468 1 426					
511 510 497 488 477 467 464					
441 7 509 8 496 9 487 10 477 11 467 12 425					
508 507 495 486 476 466					
440 18 506 17 494 16 485 15 475 14 465 13 424					
505 505 493 484 474 464					
440 10 504 20 493 21 483 22 473 23 463 24 422					
503 502 492 482 472 463					
439 30 501 29 491 28 481 27 471 26 462 25 421					
501 500 490 480 470 461					
438 31 499 32 490 33 479 34 469 35 460 36 420					

Meanders Page.

PRELIMINARY OATHS OF ASSISTANTS.

We, and do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true length of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

, Chainman.

, Chainman.

Subscribed and sworn to before me this }
day of , 189 }



We, and do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

, Moundman.

, Moundman.

Subscribed and sworn to before me this }
day of , 189 }



We, and do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

, Axman.

, Axman.

Subscribed and sworn to before me this }
day of , 189 }



I, , do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

, Flagman.

Subscribed and sworn to before me this }
day of , 189 }



J.W.B.
1898

FIELD NOTES

OF THE SURVEY OF THE

West and North Boundaries

of

Township No. 12 S., Range No. 19 East,

Of the Salt Lake Base and Meridian,

in the STATE OF UTAH.

AS SURVEYED BY

Ott P. Stewart and John R. Stewart, United States Deputy Surveyors

their

Under his Contract No. 242, dated April 12, 1901, 189x

Survey commenced October 11, 1901, 189x

Survey completed October 14, 1901, 189x

6-101

A. B. Stewart 6,000.00
T. C. " 5,79.92

NAMES AND DUTIES OF ASSISTANTS.

Andy J. Stewart Chainman,
Edwin A. Peay Chainman,
Vosco Call Chainman,
Hugh Conover Chainman,
Clarence S. Jarvis Moundman,
John J. Harding Moundman,
George W. Ekins Axman,
Harry Burton Axman,
Harvey R. Booth Flagman,
Gilbert Burr Flagman,

For preliminary affidavals see book C of 15 S Res E
C-151

INDEX DIAGRAM.

Township _____, *Range* _____

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Meanders Page _____

PRELIMINARY OATHS OF ASSISTANTS.

WE, and

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

....., Chainman.

....., Chainman.

Subscribed and sworn to before me this }
day of , 189 }



WE, and

do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

....., Moundman.

....., Moundman.

Subscribed and sworn to before me this }
day of , 189 }



WE, and

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

....., Axman.

....., Axman.

Subscribed and sworn to before me this }
day of , 189 }



I, , do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

....., Flagman.

Subscribed and sworn to before me this }
day of , 189 }



West boundary of T.12 S R 19 E

Survey commenced October 11, 1901, and executed with a W. and L.E. Gurley light mountain transit, No. 3, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc; which is also the least count of the latitude and declination arcs; and a W. and L.E. Gurley plain transit, No. 2, of which the horizontal limb is provided with one double vernier reading to single minutes of arc.

The instruments were examined, tested on the true meridian at Salt Lake City, found correct, and were approved by the surveyor general for Utah, the former on June 6, 1901, and the latter on May 29, 1901.

We examine the adjustments of the instruments and correct the level and collimation errors, then, to test the solar apparatus, of the No. 3 instrument, by comparing its indications resulting from solar observations made during p.m. and a.m. hours, with a true meridian established by Polaris observations, with the No. 2 instrument, we proceed as follows:

At the cor. of Tps. 12 and 13 S., Rs. 18 and 19 E., here-tofore described, latitude $39^{\circ} 45'$ N., longitude $109^{\circ} 53'$ W., we set off $39^{\circ} 45'$ N., on the lat. arc; $6^{\circ} 59'$ S., on the decl. arc; and determine a true meridian with the solar, and mark a point thereof on a stone, already set, 5.00 chs. N. of the cor.

October 11, 1901.

October 12, 1901; At 0 h 0 m . . . , l.m.t., we observe Polaris at upper culmination, with the No. 2 instrument in accordance with the Manual, and mark the true meridian thus determined, by cutting a small groove in the stone, already set 5.00 chs. N. of the cor.; this mark falls 0.24 ins. east of the true meridian determined with the solar.

West boundary of T.12 S., R.19 E.-Continued.

Chains	<p>At 7 h 6 m a.m., l.m.t., we set off $39^{\circ}43'W.$, on the lat.arc; $7^{\circ}12'S.$, on the decl.arc; and mark the true meridian determined with the solar, by a cross on the stone, already set, 500 chs.N. of the cor.; on which the true meridian falls 0.24 ins. east of the true meridian established by Polaris observation, with the No. 2 instrument; therefore we conclude that the adjustments of the instruments are satisfactory.</p> <p>The magnetic bearing of the true meridian at 7 h 30 m a.m. is $16^{\circ}15.8'W.$, the angle thus determined reduced by the table page 100 of the Manual, gives the mean mag.decl. $16^{\circ}13'E.$</p> <p>From the above described cor. we run North bet.secs.31 and 36. Over mountainous land; through dense undergrowth; ascend.</p> <p>37.50 Top of ridge, 200 ft. above sec.cor., bears E. and W.; descend.</p> <p>40.00 Set a sandstone, $18 \times 10 \times 5$ ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.Pits impracticable.</p> <p>47.75 Bottom of hollow, 150 ft. below ridge, course $1.80^{\circ}E.$; ascend.</p> <p>74.00 Top of ridge, 200 ft. above hollow, bears E. and W.; descend.</p> <p>80.00 Set a sandstone, $18 \times 8 \times 6$ ins., 12 ins. in the ground, for cor.of secs. 25, 30, 31, and 36, marked with 5 notches on N. and 1 notch on S.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.Pits impracticable. Land, mountainous. Soil, clay and gravelly loam; 2nd rate. No, timber. Undergrowth, sage brush and shadscales.</p>
--------	---

West boundary of T.12 S. R.19 E.-Continued.

Chains	Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	North, bet. secs. 25 and 30. Over mountainous land; through dense undergrowth; descend.
30.00	Bottom of hollow, 200 ft. below sec.cor., course E.; ascend.
40.00	Set a sandstone, 20x10x4 ins., 15 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
51.50	Bottom of hollow, 200 ft. below ridge, course N.E.; ascend.
65.00	Top of ridge, 200 ft. above hollow., bears N.E. and S. W.; descend.
80.00	Set a sandstone, 20x10x4 ins., 15 ins. in the ground, for cor.of secs. 19, 24, 25, and 30, marked with 4 notches on N. and 2 notches on S.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, gravelly loam and clay loam; 2nd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	North, bet. secs. 19 and 24. Over mountainous land; through dense undergrowth ;descend.
1.00	Bottom of hollow, 10 ft. below sec.cor., course N.E.; ascend.

West boundary of T.12 S., R.19 E.-Continued.

Chains	
14.00	Top of ridge, 200 ft. above hollow, bears N. 30° E. and S. 30° W.; descend.
40.00	Set a sandstone, 14x10x5 ins., 9 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
80.00	Set a sandstone, 20x7x5 ins., 15 ins. in the ground, for cor. of secs. 13, 18, 19, and 24, marked with 3 notches on N. and 3 notches on S. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, clay and gravelly loam; 2nd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs. October 12, 1901; At the noon hour the sky is overcast and solar observations are impossible.
	<hr/>
	North, bet. secs. 13 and 18. Over mountainous land; through dense undergrowth; descend.
5.25	Trail, bears N.W. and S.E.
5.35	Bottom of Tabago Canon, 100 ft. below sec.cor., course N.W.; ascend.
28.50	Top of ridge, 200 ft. above canon, bears N. 75° W. and S. 75° E.; descend.
40.00	Bottom of hollow, 200 ft. below ridge, course W. Set a limestone, 18x10x4 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Ascend.

West boundary of T.12 S., R.19 E.-Continued.

Chains
75.00 Top of ridge, 200 ft. above hollow, bears E. and W.; descend.
80.00 Set a quartzite stone, 24x6x4 ins., 18 ins. in the ground, for cor. of secs. 7, 12, 13, and 18, marked with 2 notches on N. and 4 notches on S. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
Land, mountainous.
Soil, gravelly loam; 2nd rate.
No timber.
Undergrowth, sage brush and shadscales.
Good grass for grazing.
Mountainous land, or land covered with dense undergrowth, 80.00 chs.

North, bet. secs. 7 and 12.
Over mountainous land, through dense undergrowth; descend.
22.00 Bottom of hollow, 150 ft. below sec. cor., course W.; ascend.
40.00 Set a limestone, 18x4x5 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
55.00 Top of ascent, 125 ft. above hollow, bears N. 25° W. and S. 25° E.; thence over rolling mesa.
72.30 Edge of mesa, bears N. 85° W. and S. 85° E.; descend.
80.00 Set a sandstone, 18x10x4 ins., 12 ins. in the ground for cor. of secs. 1, 6, 7, and 12, marked with 1 notch on N. and 5 notches on S. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
Land, mountainous.
Soil, gravelly loam; 2nd rate.
No timber.
Undergrowth, sage brush.

West boundary of T.12 S., R.19 E.-Concluded.

Chains	Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	North, bet. secs. 1 and 6. Over mountainous land; through dense undergrowth; descend abruptly.
10.00	Begin more gradual descent, bears N.W. and S.E.
27.00	Bottom of canon, , 300 ft. below sec.cor., course West; ascend gradually.
28.00	Trail, bears E. and W.
34.00	Begin abrupt ascent, bears E. and W.
40.00	Set a quartzite stone, 30x8x5 ins., 22 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, 7. of cor. Fits impracticable.
43.00	Top of ascent, 300 ft. above canon, bears N.E. and S.W. Thence over rolling mesa.
77.90	Leave mesa, bears W. and S. 70° E.; descend.
80.00	Set temp.cor. of Tps. 11 and 12 S., Rs. 18 and 19 E. Note ; For description of permanent cor. see notes of N.bdy. of T.12 S., R.19 E. Land, mountainous and rolling mesa. Soil, clay sandy and gravelly loam; 2nd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.

October 12, 1901.

October 14, 1901: At 7 h 0 m a.m., l.m.t., we set off 39° 49' N., on the lat.arc; 7° 54' S., on the decl.arc; and determine a true meridian with the solar at the temp.

North boundary of T.12 S., R.19 E.-Continued.

- Chains cor.of Tps.11 and 12 S.,Rs.18 and 19 E.
Thence we run
East, on a random line along N.bdy.of Tp., setting
temp. $\frac{1}{4}$ sec.and sec.cors.at intervals of 40.00 chs.,
and at 479.92 chs.intersect E.bdy.of Tp.at the cor.
of Tps.11 and 12 S.,Rs.19 and 20 E., heretofore de-
scribed.
Thence we run
West, on a true line along N.bdy.of Tp., betsecs.1 and
36.
Over mountainous land; through dense undergrowth; as-
cend.
23.00 Trail,bears N.10°W. and S.in hollow, course N.W.
29.50 Top of ridge,100 ft.above sec.cor.,bears N.and S.;
descend.
40.00 Set a limestone,18x8x5 ins.,12 ins.in the ground,for
 $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ on N.face; and raise a mound of
stone,2 ft.base, $1\frac{1}{2}$ ft.high,N.of cor.Pits impractic-
able.
42.00 Bottom of hollow,50 ft.below ridge, course N.;ascend.
58.00 Top of ridge,80 ft.above hollow,bears N.and S.;des-
cend.
77.00 Bottom of hollow,60 ft.below ridge, course N.;ascend.
80.00 Set a quartzite stone,24x8x6 ins.,18 ins.in the
ground,for cor.of secs.1,2,35, and 36,marked with 1
notch on E.and 5 notches on W.edges; and raise a mound
of stone,2 ft.base, $1\frac{1}{2}$ ft.high,W.of cor.Pits imprac-
ticable.
Land,mountainous.
Soil,gravelly loam and white clay;2nd and 3rd rate.
No timber.
Undergrowth,sage brush and shadscales.
Good grass for grazing.
Mountainous land,or land covered with dense under-
growth,80.00 chs.

North boundary of T. 12 S., E. 19 E. -Continued.

Chains West, on a true line bet. secs. 2 and 35.
Over mountainous land; through dense undergrowth; ascend.
4.50 Top of ridge, 60 ft. above sec. cor., bears N.W. and S.E.
Descend.
38.50 Foot of descent, 250 ft. below ridge, bears N.W. and S.E.; enter bottom of Hill Creek Canon.
39.60 Trail, bears N.W. and S.E.
40.00 Set a limestone, 18x10x5 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
42.35 Hill Creek Bed (dry) 15 lks. wide, course N.W.
61.50 Leave canon bottom, bears N.W. and S.E.; ascend.
70.00 Top of ascent, 200 ft. above canon, bears N.W. and S.E.
Then ^e over rolling mesa.
80.00 Set a limestone, 16x10x5 ins., 11 ins. in the ground, for cor. of secs. 2, 5, 34, and 35, marked with 2 notches on E. and 4 notches on W. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
Land, mountainous and rolling mesa.
Soil, sandy and gravelly and white clay loam; 2nd rate.
No timber.
Undergrowth, sage brush and shadscales.
Good grass for grazing.
Mountainous land, or land covered with dense undergrowth, 80.00 chs.
October 14, 1801: At the noon hour the sky is overcast and solar observations are impossible.

West, on a true line bet. secs. 3 and 34.
Over rolling mesa; through dense undergrowth.
30.00 Leave mesa, bears N. 30° E. and S. 30° W.; ascend.
40.00 Set a limestone, 20x5x4 ins., 15 ins. in the ground, for

North boundary of T.12 S., R.19 E.-Continued.

Chains	$\frac{1}{2}$ sec.cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable.
48.00	Top of ridge, 100 ft. above mesa, bears N.E. and S.W.; descend.
51.50	Bottom of hollow, 150 ft. below ridge, course N.E.; trail in bottom, bears with hollow; ascend.
80.00	Set a limestone, 18x10x6 ins., 12 ins. in the ground, for cor.of secs. 3, 4, 33, and 34, marked with 3 notches on E. and 3 notches on W..edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
	Land, mountainous and rolling mesa.
	Soil, white clay loam and gravelly ; 2nd and 3rd rate.
	No timber.
	Undergrowth, sage brush and grease wood.
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth, 80.00 chs.
<hr/>	
	West, on a true line betsecs. 4 and 33.
	Over mountainous land; through scattering undergrowth; ascend.
6.00	Top of ridge, 80 ft. above sec.cor., bears N.E. and S.W.; descend gradually.
40.00	Bottom of hollow, 50 ft. below ridge, course N. 80° E.
	Set a quartzite stone, 16x10x4 ins., 11 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable.
	Ascend.
58.75	Top of divide ridge between Hill.Creek Canon and Green River, 200 ft. above hollow, bears N. and S.; descend abruptly.
79.95	Foot of descent, 174ft. below ridge, bears N. 30° W. and

North boundary of T.12 S., R.19 E.-Continued.

Chains	and S.30° E.; thence over rolling mesa. Enter dense undergrowth.
80.00	<p>Set a limestone, 18x10x6 ins., 12 ins. in the ground, for cor. of secs. 4, 5, 32, and 33, marked with 4 notches on E. and 2 notches on W. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.</p> <p>Land, mountainous, and rolling mesa.</p> <p>Soil, clay loam and gravelly; 2nd and 3rd rate.</p> <p>No timber.</p> <p>Undergrowth, sage brush and shadscales.</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense undergrowth, 80.00 chs.</p>
40.00	<p>West, on a true line bet. secs. 5 and 32.</p> <p>Over rolling mesa; through dense undergrowth.</p> <p>Set a limestone, 20x9x4 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.</p>
80.00	<p>Set a limestone, 36x10x10 ins., 27 ins. in the ground, for cor. of secs. 5, 6, 31, and 32, marked with 5 notches on E. and 1 notch on W. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.</p> <p>Land, rolling mesa.</p> <p>Soil, white clay loam; 2nd rate.</p> <p>No timber.</p> <p>Undergrowth, sage brush and shadscales.</p> <p>Good grass for grazing.</p> <p>Land covered with dense undergrowth, 80.00 chs.</p>
	<p>West, on a true line bet. secs. 6 and 31.</p>

North boundary of T. 12 S. R.19 E.-Continued.

Chains Over rolling mesa; through dense undergrowth.
 14.50 Leave mesa, bears N. and S.; descend abruptly.
 20.50 Bottom of hollow, 150 ft. below mesa, course S.; ascend.
 22.25 Top of ascent, 150 ft. above hollow, bears N. and S.; thence over rolling mesa.
 40.00 Set a limestone, 24x9x4 ins., 18 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
 45.00 Leave mesa, bears N. and S. 20° W.; descend.
 79.92 The temp. cor. of Tps. 11 and 12 S., Rs. 18 and 19 E. Set a quartzite stone, 36x6x6 ins., 27 ins. in the ground, for cor. of Tps. 11 and 12 S., Rs. 18 and 19 E., marked 11 S. on N.E., 19 E. on S.E., 12 S. on S.W., and 18 E. on N.W. faces; with 6 notches on each edge; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, S. of cor. Pits impracticable.
 Land, mountainous and rolling mesa.
 Soil, clay loam and gravelly; 2nd and 3rd rate.
 No timber.
 Undergrowth, sage brush and shadscales.
 Good grass for grazing.
 Mountainous land, or land covered with dense undergrowth, 79.92 chs.

October 14, 1901.

Boundaries of T. 12 S., R. 19 E.

Latitudes, departures, and closing errors.

Line designated	true bearing	dist- ance chs.	latitudes		departures	
			N. chs.	S. chs.	E. chs.	W. chs.
W.bdy.T.12 S.,R.19 E.	North	480.00	480.00			
N.bdy.T.12 S.,R.19 E.	East	479.92			479.92	
E.bdy.T.12 S.,R.19 E.	South	480.00		480.00		
S.bdy.T.12 S.,R.19 E.	West	480.20				480.20
Convergency					.60	
Totals			480.00	480.00	480.52	480.20
Error in dep.					480.20	.32

Boundaries of T.12 S., R.19 E. -Concluded.

This township is mostly mountainous. It is well adapted for winter and early spring grazing. The township should be subdivided.

Scott P. Stewart
John R. Stewart
U.S. Deputy Surveyors.

October 14, 1881.

Volume

#

R0290

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by _____, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of _____ showing the respective capacities in which they acted:

S. J. H., Chairman.

K., Chairman.

L., Moundman.

L., Moundman.

Axman.

Axman.

Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted _____

United States Deputy Surveyor, in surveying all

those parts or portions of the _____

of the _____

meridian, _____, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for _____

S. J. H., Chairman.

K., Moundman.

L., Moundman.

Axman.

Axman.

Flagman.

Subscribed and sworn to before me this _____
day of _____, 189 _____ }



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, _____, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from _____, United States Surveyor General for _____, bearing date of the day of _____, 189_____, I have well & faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for _____, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____
[Handwritten signature]
of the _____ meridian, in the _____ of _____, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

[Handwritten signature]
United States Deputy Surveyor.

Subscribed by said _____, and sworn to before me
this _____ day of _____, 189_____

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salisbury Plat, February 5, 1903, 189

*The foregoing field notes of the survey of the West & North Branches
of Township 12, South Range 19 East of the
Salisbury Base Line, are verified, etc.*

executed by *Scott Stewart* *Ed. John R. Stewart*
under his contract No. *242*, dated *April 12, 1901*, 189_____, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Edward H. Alderson
United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

United States Surveyor General.

BLANK

PAGE

BLANK

PAGE

R.

FIELD NOTES

OF THE SURVEY OF THE

SUBDIVISION OF

Township No. 12 South, Range No. 19 East,

Of the SALT LAKE BASE AND Meridian,

in the STATE OF UTAH,

AS SURVEYED BY

Ott P. Stewart and John R. Stewart, United States Deputy Surveyor,
their
Under ^{the} Contract No. 242, dated April 12, 1901, 189x
Survey commenced October 15, 1901, 189x
Survey completed October 23, 1901, 189x

High 59.78 19'

NAMES AND DUTIES OF ASSISTANTS.

<u>Andy J. Stewart</u>	Chairman,
<u>Edwin A. Peay</u>	Chairman,
<u>Vesco Call</u>	Chairman,
<u>Hugh Conover</u>	Chairman,
<u>Clarence S. Jarvis</u>	Moundman,
<u>John J. Harding</u>	Moundman,
<u>George W. Ekins</u>	Axman,
<u>Harry Burton</u>	Axman,
<u>Harvey R. Booth</u>	Flagman,
<u>Gilbert Burr</u>	Flagman,

In full session may affect a bill like the one of Feb. 15, 1890. E.
6-151

INDEX DIAGRAM.

Township _____, *Range* _____

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Meanders Page _____

PRELIMINARY OATHS OF ASSISTANTS.

WE,

and

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey o

-----, *Chainman*

-----, *Chainman*

Subscribed and sworn to before me this ----- }
day of -----, 189 }



WE, ----- and

do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey o

-----, *Moundman*

-----, *Moundman*

Subscribed and sworn to before me this ----- }
day of -----, 189 }



WE, ----- and

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey o

-----, *Axma*

-----, *Axma*

Subscribed and sworn to before me this ----- }
day of -----, 189 }



I, -----, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of -----

-----, *Flagma*

Subscribed and sworn to before me this ----- }
day of -----, 189 }



Subdivision of T.12 S R.19 E.

Survey commenced October 15, 1901; and executed with a W. and L.E. Gurley light mountain transit, No. 3, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc; which is also the least count of the latitude and declination arcs; and a W. and L.E. Gurley plain transit, No. 2, of which the horizontal limb is provided with one double vernier reading to single minutes of arc.

The instruments were examined, tested on the true meridian at Salt Lake City, found correct, and were approved by the surveyor general for Utah, the former on June 6, 1901, and the latter on May 29, 1901.

We examine the adjustments of the instruments, and correct the level and collimation errors, then, to test the solar apparatus, of the No. 3 instrument, by comparing its indications resulting from solar observations made during p.m. and a.m. hours, with a true meridian established by observation on Polaris, with the No. 2 instrument, we proceed as follows:

At the cor. of secs. 1, 2, 35, and 36, on S. bdy. of 1p., heretofore described, latitude $39^{\circ}43'N.$, longitude $109^{\circ}47'W.$, we set off $39^{\circ}43'N.$, on the lat. arc; $8^{\circ}30'S.$, on the decl. arc; and determine a true meridian with the solar, and mark a point thereof on a stone set firmly in the ground, 5.00 chs. N. of the cor.

At 11 h 48 m p.m., l.m.t., we observe Polaris at upper culmination, with the No. 2 instrument, in accordance with the Manual, and mark the true meridian thus determined, by cutting a small groove in the stone already set 5.00 chs. N. of the cor.; this mark falls 0.25 ins. east of the true meridian established with the solar.

October 15, 1901.

Subdivision of S. 12. S. R. 19. E.-Continued.

- Chains October 16, 1901: At 7 h 50 m a.m., l.m.t., we set off
 35°43'N., on the lat. arc; 8°41'S., on the decl. arc; and
 mark the true meridian determined with the solar, by
 a cross on the stone already set 5.00 chs. N. of the cor.
 This mark falls 0.25 ins. east of the true meridian
 established by Polaris observation, with the No. 2,
 instrument; therefore we conclude that the adjustments
 of the instruments are satisfactory.
- The magnetic bearing of the true meridian, at 8 h
 6 m a.m. is 16°16'W., the angle thus determined reduced
 by the table page 100, of the Manual gives the mean
 mag.decl. 16°13'E.
- From the above described cor.
 we run
 N. 0°01'W., bet. secs. 35 and 36.
 Over mountainous land; through scattering undergrowth.
 Descend.
- 2.00 Bottom of hollow, 25 ft. below sec.cor., course N.E.;
 ascend.
- 24.00 Top of ridge, 150 ft. above hollow, bears E. and W.; dec-
 cond.
- 40.00 Set a quartzite stone, 24x16x4 ins., 18 ins. in the
 ground, for sec.cor., marked $\frac{1}{2}$ on W. face; and raise a
 mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits
 impracticable.
- 48.30 Bottom of hollow, 150 ft. below ridge, course N. 85°E.;
 ascend.
- 66.00 Top of ridge, 150 ft. above hollow, bears N. 50°E. and S.
 50°E.; descend.
- 70.35 Bottom of hollow, 200 ft. below ridge, course N.E.; as-
 cend.
- 75.10 Top of ridge, 150 ft. above hollow, bears N.E. and S.W.;
 descend.
- 80.00 Set a quartzite stone, 20x8x6 ins., 15 ins. in the
 ground, for cor. of secs. 25, 26, 35, and 36, marked with

Subdivision of T 12 S . R 19 E -Continued

- Chains 1 notch on S.and 1 notch on E.edges;and raise a mound of stone,2 ft.base, $1\frac{1}{2}$ ft.high,W.of cor.Pits impracticable.
- Land,mountainous.
- Soil,white clay loam and gravelly;2nd and 3rd rate.
- No timber.
- Undergrowth,sage brush and shadscales.
- Good grass for grazing.
- Mountainous land,80.00 chs.
-
- East,on a random line betsecs.25 and 36.
- 40.00 Set temp. $\frac{1}{4}$ sec.cor.
- 80.00 Intersect E.bdy.of Tp.,at the cor.of secs.25,30,51, and 56,heretofore described.
- Thence we run
- West,on a true line betsecs.25 and 36.
- Over mountainous land;through scattering undergrowth, descend.
- 7.50 Foot of descent,150 ft.below sec.cor.,bears N. 15° W. and S. 15° E.Enter bottom of Hill Creek Canon.
- Enter dense undergrowth,bears with canon.
- 8.94 Trail,bears N. 15° W.and S. 15° E.
- 10.18 Hill Creek bed(dry),15 lks.wide,course N. 15° W.
- 24.00 Trail,bears N. 15° W.and S. 15° E.
- 25.60 Leave canon bottom,bears N. 15° W.and S. 15° E.;ascend.
- 36.40 Top of ridge,150ft.above canon,bears N. 30° E.and S. 30° W.;descend.
- 40.00 Set a quartzite stone,30x8x5 ins.,22 ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ on N.face;and raise a mound of stone,2 ft.base, $1\frac{1}{2}$ ft.high,N.of cor.Pits impracticable.
- 40.30 Bottom of hollow,50 ft.below ridge,course N.E.;ascend.
- 52.30 Top of ridge,175 ft.above hollow,bears N. 40° E.and S. 40° W.;descend.

Subdivision of T. 12 S., R. 19 E. -Continued.

Chains 74.25	Bottom of hollow, 175 ft. below ridge, course N.E.; ascend.
79.40	Top of ridge, 150 ft. above hollow, bears N. and S.; descend.
60.00	The cor. of secs. 25, 26, 35, and 36. Land, mountainous. Soil, clay loam and gravelly; 2nd and 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, 80.00 chs.
	<hr/>
	N. 0° 01' W., bet. secs. 25 and 26. Over mountainous land; through scattering undergrowth. Descend.
40.00	Set a limestone, 30x6x4 ins., 22 ins. in the ground, for 1/2 sec. cor., marked 1/2 on W. face; and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of cor. Pits impracticable.
55.25	Bottom of hollow, 200 ft. below sec. cor., course N.E.; ascend.
68.50	Top of ridge, 100 ft. above hollow, bears N.E. and S.W.; descend.
80.00	Set a limestone, 20x12x4 ins., 15 ins. in the ground, for cor. of secs. 23, 24, 25, and 26, marked with 2 notches on S. and 1 notch on E. edges; and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, gravelly and clay loam; 2nd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, 80.00 chs.

Subdivision of T. 12 S. R. 19 E -Continued

Chains	East, on a random line bet. secs. 24 and 25.
40.00	Set temp. $\frac{1}{4}$ sec.cor.
79.90	Intersect E.bdy.of Sp., at the cor.of secs.19,24,25, and 30, heretofore described. Thence we run West, on a true line bet.secs.24 and 25. Over mountainous land; through scattering undergrowth; descend.
33.00	Foot of descent, 150 ft. below sec.cor., bears N.W. and S.E.; enter bottom of Hill Creek Canon. Enter dense undergrowth, bears N.W. and S.E.
33.20	Trail, bears N.W. and S.E.
36.75	Hill Creek bed(dry) 25 lks.wide, course N.W.
39.95	Set a sandstone, 15x12x4 ins., 10 ins.in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor.Pits impracticable.
70.00	Leave canon bottom, bears N.W. and S.E.; ascend.
79.90	The cor.of secs. 23,24,25, and 26. Land, mountainous and level canon bottom. Soil, gravelly loam and rocky; 2nd and 4th rate. No timber. Undergrowth, sage brush and grease wood. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.90 chs.
13.50	N.0°01'W., bet.secs.23 and 24. Over mountainous land; through scattering undergrowth; descend .
20.00	Bottom of hollow, 100 ft. below sec.cor., course N.15°E. Ascend.
21.00	Top of ridge, 75 ft. above hollow, bears N.E. and S.W.; descend.
	Trail, bears N.10°E. and S.80°W.

Subdivision of T.12 S., R.16 E.-Continued.

Chains	
31.00	Bottom of hollow, 200 ft. below ridge, course N.80° E.; ascend.
40.00	Set a limestone, 20x10x4 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
49.50	Top of ascent, 150 ft. above hollow, bears N.80° E. and S.80° W.; thence over mesa. Enter dense undergrowth, bears N.80° E. and S.80° W.
54.20	Leave mesa, bears N.80° E. and S.80° W.; descend.
56.00	Bottom of hollow, 100 ft. below mesa, course N.80° E.; ascend.
71.50	Top of ascent, 100 ft. above hollow, bears N.80° E. and S.80° W.; thence over mesa.
76.50	Leave mesa, bears N.80° E. and S.80° W.; descend abruptly.
80.00	Set a sandstone, 18x10x8 ins., 12 ins. in the ground, for cor.of secs. 13, 14, 23 and 24, marked with 3 notches on S. and 1 notch on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable. Land, mountainous and level. Soil, clay loam and gravelly; 2nd and 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs. October 16, 1901: At this cor. we set off 8°49' S., on the decl.arc; and at 0 h 5 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°46' N.
	East, on a random line bet.secs. 13 and 24.
40.00	Set temp. $\frac{1}{4}$ sec.cor.
79.24	Intersect E.bdy.of Tp., 23 lks. N.of the cor.of secs. 13, 18, 19, and 24, heretofore described.

Subdivision of T.12.S., R.19.E.-Continued.

Chains	Thence we run N.89°50'W.; on a true line bet. secs. 13 and 24. Over mountainous land; through dense undergrowth; ascend.
19.50	Top of ridge, 100 ft. above sec. cor., bears N.W. and S.E.; descend.
39.97	Set a sandstone, 18x9x7 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
50.25	Foot of descent, 200 ft. below ridge, bears N.35°W. and S.35°E. Enter bottom of Hill Creek Canon.
52.50	Trail, bears N.35°W. and S.35°E.
57.50	Hill Creek bed(dry), 20 lks. wide, course N.20°W.
62.80	Leave canon bottom, bears N.20°W. and S.20°E.; ascend.
69.50	Top of ascent, 150 ft. abeve canon, bears N. and S.; thence over mesa.
75.60	Leave mesa, bears N.15°E. and S.15°W.; descend.
79.94	The cor. of secs. 13, 14, 23, and 24. Land, mountainous and level. Soil, clay and gravelly loam; 2nd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.94 chs.

N.0°01'W., bet. secs. 13 and 14.

Over mountainous land; through scattering undergrowth; descend.

5.50	Bottom of hollow, 100 ft. below sec. cor., course N.E.; ascend.
40.00	Set a sandstone, 22x9x5 ins., 16 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impractic-

Subdivision of T.12 S. R.19 E.-Continued.

- Chains able.
- 40.50 Top of ridge, 150 ft. above hollow, bears N.70° E. and S. 70° W.; descend.
- 80.00 Set a sandstone, 24x10x4 ins., 18 ins. in the ground, for cor. of secs. 11, 12, 13, and 14, marked with 4 notches on S. and 1 notch on E. edges; and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.
Land, mountainous.
Soil, clay and gravelly loam; 2nd rate.
No timber.
Undergrowth, sage brush and shadscales.
Good grass for grazing.
Mountainous land, 80.00 chs.
-
- S.89° 50' E., on a random line bet. secs. 12 and 13.
- 40.00 Set temp. $\frac{1}{2}$ sec. cor.
- 79.86 Intersect E. bdy. of Tp., 33 lks. S. of the cor. of secs. 7, 12, 13, and 18, heretofore described.
Thence we run
S.89° 56' W., on a true line bet. secs. 12 and 13.
Over mountainous land; through dense undergrowth; descend.
- 30.00 Foot of descent, 150 ft. below sec. cor., bears N. and S.
Enter bottom of Mill Creek Canon.
- 39.93 Set a limestone, 18x14x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor. Pits impracticable.
- 40.00 Trail, bears N. and S.
- 61.00 Mill Creek bed(dry), 20 lks. wide, course N.W.
- 73.30 Leave canon bottom, bears N. and S.; ascend.
- 79.86 The cor. of secs. 11, 12, 13, and 14.
Land, mountainous and level.
Soil, clay loam gravelly and rocky; and 3rd and 4th rate.

Subdivision of T.12 S. R.19 E.-Continued.

Chains	No timber. Undergrowth,sage brush grease wood and shadscales. Good grass for grazing. Mountainous land,or land covered with dense undergrowth,79.86 chs..
	N.0°01'W.,betsecs.11 and 12. Over mountainous land;through scattering undergrowth; descend gradually.
40.00	Set a limestone,20x7x4 ins.,15 ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ on W.face;and raise a mound of stone,2 ft.base, $1\frac{1}{2}$ ft.high,W.of cor.Pits impracticable.
65.00	Foot of descent,150 ft.below sec.cor.,bears N.30°W. and S.30°E.Enter bottom of Hill Creek Canon. Enter dense undergrowth,bears N.30°W.and S.30°E.
70.25	Hill Creek bed (dry),15 lks.wide,course N.35°W.
80.00	Set a limestone,30x8x4 ins.,22 ins.in the ground,for cor of secs.1,2,11, and 12,marked with 5 notches on S.and 1 notch on E.edges;and raise a mound of stone, 2 ft.base, $1\frac{1}{2}$ ft.high,W.of cor.Pits impracticable. Land,mountainous and level. Soil,clay loam and gravelly;2nd and 3rd rate.
	No timber.. Undergrowth,sage brush and grease wood . Good grass for grazing. Mountainous land,or land covered with dense undergrowth,80.00 chs..
	N.89°56'E.,on a randomline betsecs.1 and 12.
40.00	Set temp. $\frac{1}{4}$ sec.cor.
79.90	Intersect E.bdy.of Tp.,10 lks.N.of the cor.of secs. 1,6,7, and 12,heretofore described. Thence we run

Subdivision of T.12 S., R.19 E.-Continued.

Chains	West, on a true line bet. secs. 1 and 18. Over mountainous land; through dense undergrowth; descend gradually.
53.60	Trail, bears N.30° E. and S.30° W.
59.95	Set a limestone, 16x11x4 ins., 11 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
69.00	Foot of descent, 150 ft. below sec.cor., bears N.40° W. and S.40° E. Enter bottom of Hill Creek Canon.
72.00	Trail, bears N.40° W. and S.40° E.
79.90	The cor. of secs. 1, 2, 11, and 12. Land, mountainous and level. Soil, clay and gravelly loam; 2nd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.90 chs..
40.00	N.0°01' W., on a random line bet. secs. 1 and 2. Set temp. $\frac{1}{2}$ sec.cor.
80.16	Intersect N.bdy. of Tp. 7 lks. E. of the cor. of secs. 1, 2, 35, and 36, heretofore described. Thence we run S.0°04' E., on a true line bet. secs. 1 and 2. Over mountainous land; through dense undergrowth; ascend.
5.00	Top of ridge, 50 ft. above sec.cor., bears N.W. and S.E.; descend.
40.16	Set a limestone, 18x6x5 ins. 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
62.00	Foot of descent, 200 ft. below ridge, bears N.40° W.

Subdivision of T.12.S..R.19.E.-Continued.

Chains	and S.40° E. Enter bottom of Hill Creek Canon.
63.50	Trail, bears N.40° W. and S.40° E.
80.16	The cor. of secs. 1, 2, 11, and 12. Land, mountainous and level.. Soil, gravelly loam and clay loam; 2nd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or, land covered with dense under-growth, 80.16 chs.

October 16, 1901.

October 17, 1901: At 8 h 0 m a.m., l.m.t., we set off 39° 43' N., on the lat. arc; 9° 07' S., on the decl. arc; and determine a true meridian with the solar, at the cor. of secs. 2, 3, 34, and 35, on S.bdy. of Tp., heretofore described.

Thence we run

N.0° 01' W., bet. secs. 34 and 35.

Over mountainous land; through scattering undergrowth.

Descend.

9.50	Bottom of hollow, 150 ft. below sec.cor., course N.60° E.; ascend.
27.50	Top of ridge, 250 ft. above hollow, bears E. and W.; descend.
33.00	Bottom of hollow, 200 ft. below ridge, course E.; ascend.
38.50	Top of ascent, 200 ft. above hollow, bears E. and W.; thence over mesa.
40.00	Set a limestone, 18x8x4 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
50.00	Leave mesa, bears E. and W.; descend.
60.60	Bottom of hollow, 150 ft. below mesa, course E.; ascend.

Subdivision of T.12 S., R.19 E.-Continued.

Chains	
68.00	Top of ridge, 100 ft. above hollow, bears E. and W.; descend.
74.70	Bottom of hollow, 100 ft. below ridge, course N.75°E.; ascend.
80.00	Set a quartzite stone, 24x8x5 ins., 18 ins. in the ground, for cor. of secs. 26, 27, 34, and 35, marked with 1 notch on S. and 2 notches on E. edges; and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor. Pits impracticable.
	Land, mountainous.
	Soil, white clay and gravelly loam and rocky; 2nd and 4th rate.
	No timber.
	Undergrowth, sage brush and shadscale.
	Good grass for grazing.
	Mountainous land, 80.00 chs.
<hr/>	
	East, on a random line bet. secs. 26 and 35.
40.00	Set temp. $\frac{1}{2}$ sec. cor.
80.08	Intersect N. and S. line, at the cor. of secs. 25, 26, 35, and 36.
	Thence we run
	West, on a true line bet. secs. 26 and 35.
	Over mountainous land; through dense undergrowth; descend.
5.80	Bottom of hollow, 100 ft. below sec. cor., course N.; ascend.
40.04	Set a quartzite stone, 18x10x4 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor. Pits impracticable.
59.20	Top of ridge, 300 ft. above hollow, bears N.E. and S.W.; descend.

Subdivision of T.12 S., R.19 E.-Continued.

- Chains 68.00 Bottom of hollow, 150 ft. below ridge, course N.E.; ascend.
- 80.08 The cor. of secs. 26, 27, 34, and 35.
Land, mountainous.
Soil, gravelly and rocky; 3rd and 4th rate.
No timber.
Undergrowth, sage brush and deer brush.
Good grass for grazing.
Mountainous land, or land covered with dense undergrowth, 80.08 chs.
-
- N.0°01'W., bet. secs. 26 and 27.
Over mountainous land; through dense undergrowth; ascend.
- 7.50 Top of ridge, 50 ft. above sec. cor., bears N.20°E. and S.20°W.; descend.
- 32.00 Bottom of hollow, 200 ft. below ridge, course N.E.; ascend.
- 40.00 Set a sandstone, 20x9x4 ins., 15 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
- 73.00 Top of ridge, 200 ft. above hollow, bears N.85°E. and S.85°W.; descend.
- 80.00 Set a sandstone, 24x8x8 ins., 18 ins. in the ground, for cor. of secs. 22, 23, 26, and 27, marked with 2 notches on S. and 2 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
Land, mountainous.
Soil, gravelly; 3rd rate.
No timber.
Undergrowth, sage brush and deer brush.
Good grass for grazing.
Mountainous land, or land covered with dense under-

Subdivision of T.12 S., R.19 E.-Continued.

Chains	growth, 80.00 chs.
	East, on a random line bet. secs. 23 and 26.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.20	Intersect N. and S. line, 19 lks. S. of the cor. of secs. 23, 24, 25, and 26. Thence we run S. $89^{\circ} 52' W.$, on a true line bet. secs. 23 and 26. Over mountainous land; through dense undergrowth; descend.
7.75	Bottom of hollow, 60 ft. below sec. cor., course N. $20^{\circ} E.$. Ascend.
16.30	Top of ridge, 150 ft. above hollow, bears N. $20^{\circ} E.$ and S. $20^{\circ} W.$; descend.
37.75	Bottom of hollow, 125 ft. below ridge, course N. $30^{\circ} E.$; ascend.
40.10	Set a limestone, 18x10x5 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, 1 ft. high, N. of cor. Fits impracticable.
60.00	Top of ridge, 100 ft. above hollow, bears N. and S.; descend.
80.20	The cor. of secs. 22, 23, 26, and 27. Land, mountainous. Soil, gravelly loam and rocky; 2nd and 4th rate. No timber. Undergrowth, sage brush, shadscales and deer brush. Good grass for grazing. Mountainous land; or land covered with dense undergrowth, 80.20 chs.
	N. $0^{\circ} 01' W.$, bet. secs. 22 and 23. Over mountainous land; through dense undergrowth; descend.

Subdivision of T 12 S .R.19 E -Continued.

Chains

- 1.00 Bottom of hollow, 10 ft. below sec.cor., course N.70°E.
Ascend.
- 7.00 Top of ridge, 150 ft. above hollow, bears N.70°E. and S.
70°W.; descend.
- 23.80 Bottom of hollow, 150 ft. below ridge, course N.85°E.;
ascend.
- 40.00 Set a limestone, 18x6x5 ins., 12 ins. in the ground, for
 $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W. face; and raise a mound of
stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
- 42.00 Top of ascent, 125 ft. above hollow, bears E. and W.;
thence over mesa.
- 49.25 Leave mesa, bears E. and W.; descend.
- 52.00 Bottom of hollow, 100 ft. below mesa, course E.; ascend.
- 53.50 Top of ascent, 100 ft. above hollow, bears E. and W.;
thence over rolling mesa.
- 80.00 Set a limestone, 24x8x4 ins., 18 ins. in the ground, for
cor. of secs. 14, 15, 22, and 23, marked with 3 notches on
S. and 2 notches on E. edges; and raise a mound of stone,
2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
Land, mountainous and level.
Soil, sandy and gravelly loam and white clay ; 2nd and
3rd rate.
No timber.
Undergrowth, sage brush and shadscales.
Good grass for grazing.
Mountainous land, or land covered with dense under-
growth, 80.00 chs.
- October 17, 1901: At this cor. we set off 9° 11' S., on the
decl.arc; and at 0 h 2 m p.m., l.m.t., observe the sun
on the meridian , the resulting lat. is 39° 46' N.

N.89° 52'E., on a random line bet. secs. 14 and 23.

40.00 Set temp. $\frac{1}{4}$ sec.cor.

Subdivision of T 12 S R 18 E -Continued

Chains	
. 80.12	Intersect N. and S. line, 14 lks. N., of the cor. of secs. 13, 14, 23, and 24. Thence we run S. 89° 58' W., on a true line bet. secs. 14 and 23. Over mountainous land; through dense undergrowth; descend.
4.85	Bottom of hollow, 75 ft. below sec. cor., course N. 60° E.; ascend.
15.00	Top of ascent, 100 ft. above hollow, bears N. and S.; thence over rolling mesa.
40.06	Set a limestone, 18x10x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
80.12	The cor. of secs. 14, 15, 22, and 23. Land, mountainous and rolling mesa. Soil, sandy and clay loam; 2nd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.12 chs.
	 N. 0° 01' W., bet. secs. 14 and 15. Over rolling mesa; through dense undergrowth,
40.00	Set a sandstone, 18x10x4 inc., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
80.00	Set a limestone, 24x9x5 ins., 18 ins. in the ground, for cor. of secs. 10, 11, 14, and 15, marked with 4 notches on S. and 2 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, rolling mesa.

Subdivision of T.12 S., R.19 E -Continued

Chains	<p>Soil, sandy and clay loam; 2nd rate.</p> <p>No timber.</p> <p>Undergrowth, sage brush and shadscales.</p> <p>Good grass for grazing.</p> <p>Land covered with dense undergrowth, 80.00 chs.</p>
	<p>N.89° 58'E., on a random line bet. secs. 11 and 14.</p>
40.00	<p>Set temp. $\frac{1}{4}$ sec.cor.</p>
80.00	<p>Intersect N. and S. line, 5 lks. N. of the cor. of secs. 11, 12, 13, and 14.</p> <p>Thence we run</p> <p>West, on a true line bet. secs. 11 and 14.</p> <p>Over mountainous land; through dense undergrowth; ascend.</p>
7.50	<p>Top of ascent, 100 ft. above sec.cor., bears N. and S.; thence over rolling mesa.</p>
40.00	<p>Set a limestone, 30x6x4 ins., 22 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, 1$\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.</p>
80.00	<p>The cor. of secs. 10, 11, 14, and 15.</p> <p>Land, mountainous and rolling mesa.</p> <p>Soil, sandy and clay loam and gravelly; 2nd and 3rd rate.</p> <p>No timber.</p> <p>Undergrowth, sage brush and shadscales.</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense undergrowth, 80.00 chs.</p>
	<p>N.0° 01'W., bet. secs. 10 and 11.</p> <p>Over rolling mesa; through dense undergrowth.</p>
40.00	<p>Set a sandstone, 20x6x4 ins., 15 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W. face; and raise a mound of</p>

Subdivision of T.12 S., R.19 E.-Continued.

Chains	stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
80.00	Set a limestone, 24x10x5 ins., 18 ins. in the ground, for cor. of secs. 2, 3, 10, and 11, marked with 5 notches on S. and 2 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	Land, rolling mesa.
	Soil, sandy and clay loam; 2nd rate.
	No timber.
	Undergrowth, sage brush and shadscales.
	Good grass for grazing.
	Land covered with dense undergrowth, 80.00 chs.
<hr/>	
	East, on a random line bet. secs. 2 and 11.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.90	Intersect N. and S. line, at the cor. of secs. 1, 2, 11, and 12.
	Thence we run
	West, on a true line bet. secs. 2 and 11.
	Over level bottom of Hill Creek Canon; through dense undergrowth.
4.25	Hill Creek bed(dry), 20 lks. wide, course N. 40° W.:
7.50	Leave canon bottom, bears N. 35° W. and S. 35° E.; ascend.
15.00	Top of ascent, 150 ft. above canon, bears N. 35° W. and S. 35° E.; thence over rolling mesa.
39.95	Set a limestone, 22x8x4 ins., 16 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
79.90	The cor. of secs. 2, 3, 10, and 11.
	Land, mountainous and rolling mesa.
	Soil, sandy and clay loam; 2nd rate.
	No timber.
	Undergrowth, sage brush, grease wood and shadscales.

Subdivision of T.12 S., R.19 E.-Continued.

Chains Good grass for grazing.
Mountainous land, or land covered with dense undergrowth, 79.90 chs.
October 17, 1901.

October 18, 1901: At 8 h 2 m a.m., l.m.t., we set off $39^{\circ} 48' N.$, on the lat. arc; $90^{\circ} 28' S.$, on the decl. arc; and determine a true meridian with the solar, at the cor. of secs. 2, 3, 10, and 11.

Thence we run

$N.0^{\circ} 01' W.$, on a random line bet. secs. 2 and 3.

40.00 Set temp. $\frac{1}{2}$ sec. cor.,

80.32 Intersect N.bdy. of Tp., 7 lks. E. of the cor. of secs. 2, 3, 34, and 35, heretofore described.

Thence we run

$S.0^{\circ} 04' E.$, on a true line bet. secs. 2 and 3.

Over rolling mesa; through dense undergrowth.

40.32 Set a limestone, 18x8x6. ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

80.32 The cor. of secs. 2, 3, 10, and 11.

Land, rolling mesa.

Soil, sandy and clay loam; 2nd rate.

No timber.

Undergrowth, sage brush and shadscales.

Good grass for grazing.

Land covered with dense undergrowth, 80.32 chs.

From the cor. of secs. 3, 4, 33, and 34, on S.bdy. of Tp., heretofore described,
we run

$N.0^{\circ} 02' W.$, bet. secs. 33 and 34.

Over rolling mesa; through dense undergrowth.

Subdivision of T.12 S., R.19 E.-Continued.

Chains	
23.50	Leave mesa, bears N. 20° W. and S. 20° E.; descend.
38.00	Bottom of hollow, 200 ft. below mesa, course N. 20° W.; ascend.
40.00	Set a limestone, 15x10x6 ins., 10 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
72.75	Top of ridge, 150 ft. above hollow, bears E. and W.; descend.
79.50	Bottom of hollow, 125 ft. below ridge, course W.; ascend.
80.00	Set a limestone, 24x10x4 ins., 18 ins. in the ground, for cor. of secs. 27, 28, 33, and 34, marked with 1 notch on S. and 3 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	Land, mountainous and rolling mesa.
	Soil, gravelly; 3rd. rate.
	No. timber.
	Undergrowth, sage brush and shadscales.
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth, 80.00 chs.
<hr/>	
	East, on a random line bet. secs. 27 and 34.
40.00	Set temp. $\frac{1}{2}$ sec. cor.
79.80	Intersect N. and S. line, 1D lks. S. of the cor. of secs. 26, 27, 34, and 35.
	Thence we run
	S. $89^{\circ}56'$ W., on a true line bet. secs. 27 and 34.
	Over mountainous land; through scattering undergrowth; ascend.
2.40	Top of ridge, 50 ft. above sec. cor., bears N. 40° E. and S. 40° W.; descend.

Subdivision of T 12 S .R 19 E -Continued

- Chains 15.00 Bottom of hollow, 150 ft. below ridge, course N. 20° E.; ascend.
- 37.12 Top of ridge, 100 ft. above hollow, bears N. and S.; descend.
- 39.90 Set a quartzite stone, 36x8x5 ins., 27 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
- 42.12 Trail, bears N. and S.
- 79.80 The cor. of secs. 27, 28, 33, and 34.
Land, mountainous.
Soil, gravelly; 3rd rate.
No timber.
Undergrowth, sage brush and shadscales.
Good grass for grazing.
Mountainous land, 79.80 chs.
- October 18, 1901: At this cor. we set off 9° 33' S., on the decl. arc; and at 0 h 3 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39° 44' N.
-

N. 0° 02' W., bet. secs. 27 and 28.

Over mountainous land; through scattering undergrowth.

Ascend.

- 30.00 Top of ridge, 150 ft. above sec. cor., bears N. 80° W. and S. 80° E.; descend.
- 40.00 Set a limestone, 20x10x8 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
- 50.00 Bottom of hollow, 150 ft. below ridge, course N. W.; ascend.
- 61.50 Top of ridge, 175 ft. above hollow, bears E. and W.; descend.
- 67.00 Bottom of hollow, 125 ft. below ridge, course W.; ascend.

Subdivision of T 12 S .R.18 E.-Continued.

Chains	
71.00	Top of ridge,150 ft.above hollow,bears N.80°E;and S.80°W.;descend.
75.00	Bottom of hollow,100 ft.below ridge,course N.60°W.;ascend.
79.00	Top of ridge,100 ft.above hollow,bears E.E. and S.W.;descend.Enter dense undergrowth,bears with ridge.
80.00	Set a limestone,20x10x5 ins.,15 ins.in the ground,for cor.of secs.21,22,27, and 28,marked with 2 notches on S.and 3 notches on E.edges;and raise a mound of stone,2 ft.base,1½ ft.high,W.of cor.Pits impracticable. Land,mountainous. Soil,sandy and gravelly;3rd rate. No timber. Undergrowth,sage brush and shadscalc's. Good grass for grazing. Mountainous land,or land covered with dense undergrowth,80.00 chs.
	N.89° 56' E.,on a random line betsecs.22 and 27.
40.00	Set temp. $\frac{1}{4}$ sec.cor.,
79.80	Intersect N.and S.line,5 lks.N.of the cor.of secs.22,23,26, and 27. Thence we run
	S.89° 58' W.,on a true line betsecs.22 and 27. Over mountainous land;through scattering undergrowth;descend.
1.00	Bottom of hollow,10 ft.below sec.cor.,course N.80°E.;ascend.
11.00	Top of ridge,100 ft.above hollow,bears N.80°E. and S.80°W.;descend.
27.00	Bottom of hollow,50 ft.below ridge,course S.E.;ascend.
39.00	Set a limestone,40x5x4 ins.,30 ins.in the ground,for $\frac{1}{2}$ sec.cor.,marked $\frac{1}{2}$ on N.face;and raise a mound of

Subdivision of T 12 S., R 19 E -Continued

Chains	stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
67.25	Top of ridge, 200 ft. above hollow, bears N.E. and S.W.; this is the divide ridge bet. Hill Creek and Green River.
68.50	Bottom of swale, 50 ft. below ridge, course S. 80° W.; ascend.
79.00	Top of ridge, 25 ft. above hollow, bears N.E. and S.W.; descend.
79.80	The cor. of secs. 21, 22, 27, and 28. Land, mountainous. Soil, clay and gravelly loam; 2nd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, 79.80 chs.

	N. $0^{\circ} 02'$ W., bet. secs. 21 and 22. Over mountainous land; through dense undergrowth; along west side of divide ridge.
40.00	Set a limestone, 16x6x4 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
75.00	Top of spur, 25 ft. above $\frac{1}{4}$ sec. cor., bears E. and W.; descend.
80.00	Set a limestone, 20x6x4 ins., 15 ins. in the ground, for cor. of secs. 15, 16, 21, and 22, marked 12 S. on N.E. and 19 E. on S.E. faces; with 3 notches on S. and 3 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, gravelly; 3rd rate. No timber. Undergrowth, sage brush. Good grass for grazing.

Subdivision of T. 12 S., R. 19 E.-Continued.

Chains	Mountainous land, or land covered with dense undergrowth, 80.00 chs.
40.00	N. $89^{\circ} 58' E.$, on a random line bet. secs. 15 and 22.
40.00	Set temp. $\frac{1}{2}$ sec. cor.
79.70	Intersect N. and S. line, 27 lks. N. of the cor. of secs. 14, 15, 22, and 23. Thence we run, N. $89^{\circ} 50' W.$, on a true line bet. secs. 15 and 22. Over rolling mesa; through dense undergrowth:
9.00	Leave mesa, bears N.W. and S.E.; descend gradually.
20.00	Bottom of hollow, 25 ft. below mesa, course N.E.; ascend.
29.00	Top of ridge, 100 ft. above hollow, bears N.E. and S.W.; descend.
39.85	Set a limestone, 24x5x5 ins., 18 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
47.00	Bottom of hollow, 125 ft. below ridge, course N.E.; ascend.
64.00	Top of divide ridge, between Hill Creek Canon and Green River, 250 ft. above hollow, bears N. $30^{\circ} E.$ and S. $30^{\circ} W.$; descend.
79.70	The cor. of secs. 15, 16, 21, and 22. Land, mountainous, and rolling mesa. Soil, clay loam, and gravelly; 2nd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.70 chs.
October 18, 1901: At this cor. we set off 599.66' N. on the Lat. arc; $8^{\circ} 36' S.$, on the decl. arc; and determine a true meridian with the solar, and mark a point thereon on a stone, firmly set in the ground, 5.00	

Subdivision of T 12 S., R 19 E -Continued

Chains chs.N.of the cor.
 At 11 h 36 m p.m., l.m.t., we observe Polaris at upper culmination, with the No.2 instrument, in accordance with the Manual, and mark a point thereof on the stone already set 5.00 chs.N.of the cor.; this mark falls 0.26 ins.east of the true meridian established by the solar.

October 18, 1901.

October 19, 1901: At 8 h 0 m a.m., l.m.t., we set off $39^{\circ}46'N.$, on the lat.arc; $9^{\circ}50'S.$, and determine a true meridian with the solar, and mark a point thereof by a cross on the stone already set 5.00 chs.N.of the cor.; this mark falls 0.33 ins.east of the true meridian established by Polaris observation.

The solar apparatus of the No.3 instrument, by p.m. and a.m. obsefvations, defines positions for true meridians, respectively about $0'14''$ west and $0'17''$ east of the true meridian established by Polaris observation; therefore we conclude that the adjustments of the instruments are satisfactory.

The magnetic bearing of the true meridian at 8 h 30 m a.m. is $16^{\circ}15.8'W.$, the angle thus determined, reduced by the table page 100 of the Manual, gives the mean mag.decl. $16^{\circ}13'E.$

Thence we run

$N.0^{\circ}02'W.$, bet.secs.15 and 16.

Over mountainous land; through dense undergrowth; descend.

16.50 Bottom of hollow, 75 ft. below sec.cor., course W.; ascend.

40.00 Set a sandstone, 18x10x5 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W.of cor. Pits impractic-

Subdivision of T.12 S. R.19 E.-Continued.

Chains	able.
61.00	Top of divide ridge, 250 ft. above hollow, bears N.10°W. and S.10°E.; this is divide ridge between Hill Creek and Green River. Descend.
80.00	<p>Set an oilshale stone, 16x10x8 ins., 11 ins. in the ground, for cor. of secs. 9, 10, 15, and 16, marked with 4 notches on S. and 3 notches on E. edges; and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.</p> <p>Land, mountainous.</p> <p>Soil, sandy and clay loam and gravelly; 2nd and 3rd rate.</p> <p>No timber.</p> <p>Undergrowth, sage brush, shadscales, and grease wood.</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense undergrowth, 80.00 chs.</p>
	S.8S° 50'E., on a random line bet. secs. 10 and 15.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.78	<p>Intersect N. and S. line, 24 lks. S. of the cor. of secs. 10, 11, 14, and 15.</p> <p>Thence we run</p> <p>✓ West, on a true line bet. secs. 10 and 15.</p> <p>Over rolling mesa, through dense undergrowth.</p>
39.89	<p>Set a sandstone, 24x10x4 ins., 18 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor. Pits impracticable.</p> <p>Leave mesa, bears N.10°E. and S.25°E.; ascend.</p>
78.78	<p>The cor. of secs. 9, 10, 15, and 16.</p> <p>Land, mountainous and rolling mesa.</p> <p>Soil, sandy and clay loam; 2nd rate.</p> <p>No timber.</p> <p>Undergrowth, sage brush and shadscales.</p>

Subdivision of T 12 S. R 19 E. -Continued

Chains	Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.78 chs.
	N.0°02'W., bet. secs. 9 and 10. Over mountainous land; through scattering undergrowth, ascend.
27.50	Top of ridge, 100 ft. above sec.cor., bears N.20°E. and S.20°W.; descend.
40.00	Set a limestone, 24x6x4 ins., 18 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
80.00	Set a limestone, 18x10x6 ins., 12 ins. in the ground, for cor. of secs. 3, 4, 9, and 10, marked with 5 notches on S. and 5 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, clay and gravelly loam; 2nd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, 80.00 chs.
	East, on a random line bet. secs. 3 and 10. 40.00 Set temp. $\frac{1}{2}$ sec.cor.,
79.82	Intersect N. and S. line, 24 lks.S. of the cor. of secs. 2, 3, 10, and 11. Thence we run S.89°50'W., on a true line bet. secs. 3, and 10. Over rolling mesa; through dense undergrowth.
27.50	Leave mesa, bears N.5°E. and S.5°W.; ascend.
39.91	Set a limestone, 20x6x4 ins., 15 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N. face; and raise a mound of

Subdivision of T. 12 S., R. 19 E. -Continued.

Chains	stone, 2 ft. base, $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
51.85	Top of ridge, 75 ft. above mesa, bears N. 30° E. and S. 30° W.; descend.
54.35	Bottom of hollow, 75 ft. below ridge, course N. 30° E.; ascend.
59.00	Top of ridge, 150 ft. above hollow, bears N. and S.; descend.
79.82	The cor. of secs. 3, 4, 9, and 10. Land, mountainous and rolling; mesa. Soil, sandy and clay loam and gravelly; 2nd and 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense under- growth, 79.82 chs.
	October 19, 1901: At the noon hour the sky is overcast and solar observations are impossible.

	N. $0^{\circ}02'$ W., on a random line bet. secs. 3 and 4.
40.00	Set temp. $\frac{1}{2}$ sec. cor.
80.45	Intersect N. bdy. of Tp., 2 lks. E. of the cor. of secs. 3, 4, 33, and 34, heretofore described. Thence we run
	S. $0^{\circ}03'$ E., on a true line bet. secs. 3 and 4. Over mountainous land; through dense undergrowth; des- cend.
4.00	Bottom of hollow, 50 ft. below sec. cor., course E.; as- cend.
16.00	Top of ridge, 100 ft. above hollow, bears N. E. and S. W.; descend.
25.00	Bottom of hollow, 150 ft. below ridge, course N. E.; as- cend.
26.60	Trail, bears N. E. and S. W.

Subdivision of T.12 S. R.19 E.-Continued.

Chains	
40.45	Set a limestone, 16x6x6 ins., 11 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
80.45	The cor.of secs.3,4,9, and 10, Land, mountainous. Soil, sandy and clay loam and gravelly; 2nd and 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.45 chs.

From the cor.of secs.4,5,32, and 33, on S.bdy.of Tp., heretofore described.

we run

N.0°03'W., bet.secs.32 and 33.

Over level land; through dense undergrowth;

- 5.00 Leave mesa, bears E. and W.; descend.
- 9.00 Bottom of hollow, 200 ft. below mesa, course N.W.; ascend.
- 16.00 Top of ascent, 200 ft. above hollow, bears N.W. and S.E.; thence over mesa.
- 37.00 Leave mesa, bears N.30°W. and S.E.; descend gradually.
- 40.00 Set a limestone, 18x10x6 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
- Ascend gradually.
- 50.00 Top of ridge, 50 ft. above $\frac{1}{2}$ sec.cor., bears E. and W.; descend.
- 61.80 Bottom of hollow, 300 ft. below ridge, course N.80°E.; ascend.

Subdivision of T 12 S .R 19 E -Continued

Chains

- 68.10 Top of ascent, 500 ft. above hollow, bears N.75° E. and S.75° W.; thence over mesa.
- 80.00 Set a sandstone, 20x6x4 ins., 15 ins. in the ground, for cor. of secs. 28, 29, 32, and 33, marked with 1 notch on S. and 4 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
Land, mountainous and rolling and level.
Soil, clay and sandy loam and gravelly; 2nd and 3rd rate.
No timber.
Undergrowth, sage brush and shadscales.
Good grass for grazing.
Mountainous land, or land covered with dense undergrowth; 80.00 chs.

East, on a random line bet. secs. 28 and 33.

- 40.00 Set temp. $\frac{1}{2}$ sec. cor..
- 80.00 Intersect N. and S. line, at the cor. of secs. 27, 28, 33, and 34.
Thence we run
West, on a true line bet. secs. 28 and 33.
Over mountainous land; through dense undergrowth; descend.
- 6.45 Bottom of hollow, 100 ft. below sec. cor., course N.; ascend.
- 12.35 Top of ridge, 150 ft. above hollow, bears N. and S.; descend.
- 16.67 Bottom of hollow, 150 ft. below ridge, course N.; ascend.
- 32.15 Top of ascent, 200 ft. above hollow, bears N. and S.; thence over flat top ridge.
- 36.36 Leave ridge, bears N. and S.; descend.
- 40.00 Set a sandstone, 24x7x5 ins., 18 ins., in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impractic-

Subdivision of T. 12 S. R. 19 E -Continued.

Chains able:

41.35 Bottom of hollow, 50 ft. below $\frac{1}{4}$ sec.cor., course N.W.; ascend.

50.15 Top of ridge, 75 ft. above hollow, bears N.W. and S.E.; descend.

55.60 Bottom of hollow, 125 ft. below ridge, course N.; ascend.

72.30 Top of ascent, 150 ft. above hollow, bears N. and S.; thence over rolling mesa.

80.00 The cor.of secs.28,29,32, and 33.

Land, mountainous land rolling mesa.

Soil, clay loam and gravelly; 2nd and 3rd rate.

No timber.

Undergrowth, sage brush.

Good grass for grazing.

Mountainous land, or land covered with dense undergrowth, 80.00 chs.

N. $0^{\circ}03'W.$, betsecs.28 and 29.

Over rolling mesa; through dense undergrowth.

35.00 Leave mesa, bears N.E. and S.W.; descend.

39.00 Bottom of hollow, 150 ft. below mesa, course N.E.; ascend.

40.00 Set a sandstone, 20x8x4 ins., 15 ins.in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor.Pits impracticable.

44.00 Foot of perpendicular ledge, 30 ft. high, bears N. $10^{\circ}E.$ and S. $10^{\circ}W.$

60.00 Top of ascent, 150 ft. above hollow, bears E. and W.; thence over rolling mesa.

80.00 Set a sandstone, 18x8x6 ins., 12 ins.in the ground, for cor.of secs.20,21,28, and 29, marked with 2 notches on S. and 4 notches on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor.Pits impracticable.

Land, mountainous and rolling mesa.

Subdivision of T.12 S., R.19 E.-Continued.

Chains	<p>Soil, sandy loam and rocky; 2nd and 4th rate.</p> <p>No timber.</p> <p>Undergrowth, sage brush and shadscales.</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense undergrowth, 80.00 chs.</p>
--------	--

October 19, 1901.

	<p>October 21, 1901: At 8 h 0 m a.m., l.m.t., we set off $39^{\circ} 45' N.$, on the lat. arc; $10^{\circ} 35' S.$, on the decl. arc; and determine a true meridian, with the solar, at the cor. of secs. 20, 21, 28, and 29.</p> <p>Thence we run</p> <p>East, on a random line bet. secs. 21 and 28.</p> <p>40.00 Set temp. $\frac{1}{4}$ sec. cor.</p> <p>79.78 Intersect N. and S. line, at the cor. of secs. 21, 22, 27, and 28.</p> <p>Thence we run</p> <p>West, on a true line bet. secs. 21 and 28.</p> <p>Over mountainous land; through dense undergrowth; descend.</p> <p>21.00 Bottom of hollow, 100 ft. below sec. cor., course N.W.; ascend.</p> <p>32.50 Top of ridge, 100 ft. above hollow, bears N. and S.; descend.</p> <p>38.50 Bottom of hollow, 150 ft. below ridge, course N. $80^{\circ} W.$; ascend.</p> <p>39.89 Set a sandstone, 20x8x6 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, 1$\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.</p> <p>52.00 Top of ridge, 150 ft. above hollow, bears N. $30^{\circ} W.$ and S. $30^{\circ} E.$; descend.</p> <p>60.50 Bottom of hollow, 100 ft. below ridge, course N. $30^{\circ} W.$; ascend.</p>
--	---

Subdivision of T.12 S.1.R.19 E.-Continued.

Chains	
73.00	Top of ascent, 150 ft. above hollow, bears N.30° W. and S.30° W.; thence over rolling mesa.
79.78	The cor. of secs. 20, 21, 28, and 29. Land, mountainous and rolling mesa. Soil, gravelly loam and rocky; 2nd and 4th rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.78 chs.
	N.0°03'W., bet. secs. 20 and 21. Over rolling mesa; through dense undergrowth.
-12.00	Leave mesa, bears N.W. and S.E.; descend.
40.00	Set a limestone, 18x10x4 ins., 12 ins. in the ground, for sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
53.75	Bottom of hollow, 150 ft. below mesa, course N.20° W.; ascend.
65.90	Bottom of hollow, course N.20° E.; ascend gently.
80.00	Set a limestone, 30x10x4 ins., 22 ins. in the ground, for cor. of secs. 16, 17, 20, and 21, marked with 3 notches on S. and 4 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous and rolling mesa. Soil, clay and sandy loam and gravelly; 2nd and 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.

Subdivision of T.12 S., R.19 E.-Continued.

- Chains East, on a random line bet. secs. 16 and 21.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 78.90 Intersect N. and S. line, at the cor. of secs. 15, 16, 21, and 22.
Thence we run
West, on a true line bet. secs. 16 and 21.
Over mountainous land; through dense undergrowth; descend.
- 9.22 Foot of descent, 150 ft. below sec. cor., bears N. 30° E. and S. 30° W.; thence over rolling mesa.
- 38.85 Set a sandstone, 24x8x4 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
- 41.00 Leave mesa, bears N. W. and S. 80° E.; descend.
- 56.00 Bottom of hollow, 150 ft. below mesa, course N. 60° W.; ascend.
- 70.50 Top of ridge, 100 ft. above hollow, bears N. and S.; descend.
- 76.00 Bottom of hollow, 150 ft. below ridge, course N. 30° W.; ascend.
- 78.90 The cor. of secs. 16, 17, 20, and 21.
Land, mountainous and rolling mesa.
Soil, clay and gravelly loam and sandy; 2nd and 3rd rate.
No timber.
Undergrowth, sage brush and shadscales.
Good grass for grazing.
Mountainous land, or land covered with dense undergrowth, 70.00 chs.
- N. $0^{\circ} 03' W.$, bet. secs. 16 and 17.
Over mountainous land; through scattering undergrowth; descend.
- 9.00 Bottom of hollow, 250 ft. below sec. cor., course N. 35° W.;

Subdivision of T. 12 S., R. 49 E. -Continued

Chains	ascend.
54.50	Top of ascent, 250 ft. above hollow, bears N. 85° W. and S. 85° E.; thence over mesa. Enter dense undergrowth.
40.00	Set a limestone, 14x10x5 ins., 9 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	Leave mesa, bears N. 80° W. and S. 80° E.; descend.
49.50	Bottom of hollow, 150 ft. below mesa, course N. 65° W.; ascend.
57.00	Top of ascent, 175 ft. above hollow, bears N. W. and S. E.; thence over mesa.
69.50	Leave mesa, bears N. W. and S. E.; descend.
77.50	Bottom of hollow, 200 ft. below mesa, course N. 70° W.; ascend.
80.00	Set a limestone, 16x9x8 ins., 11 ins. in the ground, for cor. of secs. 8, 9, 16, and 17, marked with 4 notches on S. and 4 notches on E. edges; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	Land, mountainous and level.
	Soil, sandy and clay loam and gravelly; 2nd and 3 rd rate.
	No timber.
	Undergrowth, sage brush and shadscales.
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	October 21, 1891: At the noon hour the sky is overcast and solar observations are impossible.
	East, on a random line bet. secs. 9 and 16.
40.00	Set temp. $\frac{1}{2}$ sec. cor.
79.90	Intersect N. and S. line, 10 lks. S. of the cor. of secs. 8, 10, 15, and 16.
	Thence we run

Subdivision of T. 12 S., R. 19 E. -Continued.

Chains	S. 89° 56' W., on a true line bet. secs. 9 and 16. Over mountainous land; through dense undergrowth; ascend.
11.50	Top of divide ridge, between Hill Creek Canon and Green River, 25 ft. above sec. cor., bears N. 10° W. and S. 10° E.; descend.
20.00	Foot of descent, 200 ft. below ridge, bears N. 5° W. and S. 15° E.; thence over rolling mesa.
39.95	Set a limestone, 18x8x4 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
44.00	Leave mesa, bears N. and S.; descend.
79.90	The cor. of secs. 8, 9, 16, and 17. Land, mountainous and rolling mesa. Soil, clay, and gravelly loam; 2nd. rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.90 chs.

Chains	N. 0° 03' W., bet. secs. 8 and 9. Over mountainous land; through dense undergrowth; ascend.
10.50	Top of ascent, 150 ft. above sec. cor., bears N. 80° W. and S. 80° E.; thence over rolling mesa.
40.00	Set a limestone, 18x8x4 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
45.50	Leave mesa, bears N. 20° W. and S. 20° E.; descend.
53.50	Bottom of hollow, 150 ft. below mesa, course N. 80° W.; ascend. Trail in bottom, bears with hollow.
60.50	Top of ascent, 100 ft. above hollow, bears E. and W.

Subdivision of T 12 S R 19 W -Continued ..

- Chains Thence over rolling mesa.
- 78.40 Leave mesa, bears N. 88° E. and S. 88° W.; descend.
- 80.00 Set a limestone, 24x12x8 ins., 18 ins. in the ground, for cor. of secs. 4, 5, 8, and 9, marked with 5 notches on S. and 4 notches on E. edges; and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.
- Land, mountainous and rolling mesa.
- Soil, clay and gravelly loam; 2nd rate.
- No timber.
- Undergrowth, sage brush and shadscales.
- Good grass for grazing.
- Mountainous land, or land covered with dense undergrowth, 80.00 chs.
-
- N. 89° 56' E., on a random line bet. secs. 4 and 9.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 79.82 Intersect N. and S. line, 10 lks. S. of the cor. of secs. 3, 4, 9, and 10.
- Thence we run S. 89° 52' W., on a true line bet. secs. 4 and 9.
- Over mountainous land; through dense undergrowth; descend.
- 13.50 Bottom of hollow, 200 ft. below sec. cor., course N. 20° E.
- Ascend.
- 28.00 Top of divide ridge, between Hill Creek Canon and Green River, 250 ft. above hollow, bears N. and S.; descend.
- 39.00 Bottom of hollow, 100 ft. below ridge; course S. 80° W.; descend. Trail in bottom bears with hollow.
- 39.91 Set a limestone, 18x6x5 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor. Pits impracticable. A small sulphur spring bears S.W. about 2 chs. dist.
- 55.00 Brook of decent, 150 ft. below $\frac{1}{4}$ sec. cor.; bears N. 5° W. and S. E.; thence over rolling mesa.

Subdivision of T. 12 S., R. 19 E.-Continued.

Chains	
72.50	Leave mesa, bears N. and S.; descend.
79.82	The cor. of secs. 4, 5, 8, and 9. Land, mountainous and rolling mesa. Soil, clay loam and gravelly; 2nd and 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.82 chs.
	N. 0° 03' W., on a random line bet. secs. 4 and 5.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.30	Intersect N. bdy. of Tp., 2 lks. E. of the cor. of secs. 4, 5, 32, and 33, heretofore described. Thence we run S. 0° 04' E., on a true line bet. secs. 4 and 5. Over rolling mesa; through dense undergrowth.
40.30	Set a limestone, 18x9x7 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Fits impracticable.
77.60	Leave mesa, bears E. and W.; descend.
79.50	Bottom of hollow, 125 ft. below mesa, course N. 80° W.; ascend.
80.30	The cor. of secs. 4, 5, 8, and 9. Land, mountainous, and rolling mesa. Soil, sandy loam; 2nd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.30 chs.

October 21, 1901.

Subdivision of T.12 S., R.19 E.-Continued

Chains	October 22, 1901 : At 7 h 30 m a.m., l.m.t., we set off 39° 43' N., on the lat.arc; 10° 42' S., on the decl.arc; and determine a true meridian with the solar at the cor. of secs. 5, 6, 31, and 32, on S.bdy.of Tp., heretofore de- scribed.
	Thence we run 1.000 ft. a random line N. 0° 03' W., bet. secs. 31 and 32.
	Over mountainous land; through dense undergrowth; des- cend gradually.
40.00	Set a quartzite stone, 30x8x8 ins., 22 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits im- practicable.
40.40	Bottom of Hollow, 150 ft. below sec.cor., course N.W.; ascend.
52.20	Top of ridge, 250 ft. above hollow; bears N.W. and S.E.; descend.
67.20	Bottom of hollow, 200 ft. below ridge, course N. 60° W.; ascend.
72.40	Top of ascent, 200 ft. above hollow, bears N. 60° W. and S. 60° E.; thence over rolling mesa.
80.00	Set a sandstone, 26x7x5 ins., 19 ins. in the ground, for cor.of secs. 29, 30, 31, and 32, marked with 1 notch on S., and 5 notches on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits imprac- ticable.
	Land, mountainous and rolling mesa. Soil, clay and gravelly loam; 2nd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense under- growth, 80.00 chs.
	East, on a random line bet.secs. 29 and 32. \times

Subdivision of T.12 S., R.19 E -Continued

Chains	
40.00	Set temp. $\frac{1}{4}$ sec.cor.
.79.92	Intersect N.and S.line,at the cor.of secs.28,29,32, and 33..
	Thence we run
	West, on a true line betsecs.29 and 32.
	Over rolling mesa;through dense undergrowth.
10.61	Leave mesa,bears N.and S.;descend.
.12.12	Bottom of hollow,150 ft.below mesa,course N.20° W.; ascend.
17.67	Top of spur,100 ft.above hollow,bears N.20° W.and S. 20° E.;descend.
23.40	Bottom of hollow,100 ft.below spur,course N.;ascend:
39.96	Set a sandstone,24x10x4 ins.,18 ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ on N.face;and raise a mound of stone,2 ft.base, $1\frac{1}{2}$ ft.high,N.of cor.Pits impractic- able.
48.50	Top of ascent,275 ft.above hollow,bears N.and S.; thence over rolling mesa.
79.92	The cor.of secs.29,30,31, and 32. Land,mountainous and rolling mesa. Soil,clay and gravelly loam;2nd rate. No timber. Undergrowth,sage brush and shadscales. Good grass for grazing. Mountainous land,or land covered with dense under- growth,79.92 chs.
	West;on a random line betsecs 30, and 31 .
40.00	Set temp. $\frac{1}{4}$ sec.cor.
80.04	Intersect W.bdy.of Tp.,10 lks.N.of the cor.of secs. 25,30,31, and 36,heretofore described.
	Thence we run
	N.89° 56'E.,on a true line betsecs 30 and 31.
	Over.mountainous land;through dense undergrowth;des-

Subdivision of T 12 S R 19 E -Continued

Chains	descend gradually.
40.04	Set a sandstone, 20x12x4 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable.
43.00	Trail, bears N.25°W. and S.25°E.
43.10	Bottom of Tabago Canon, 200 ft. below sec.cor., course N.25° W.; ascend.
49.50	Top of ridge, 200 ft. above canon, bears N.W. and S.E.; descend.
55.00	Bottom of hollow, 100 ft. below ridge, course N.W.; ascend.
70.00	Top of ascent, 200 ft. above hollow, bears N.50°W. and S.45°E.; thence over rolling mesa.
80.04	The cor.of secs.29,30,31, and 32. Land, mountainous and rolling mesa. Soil, sandy and white clay loam; 2nd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.04 chs.
<hr/>	
	N0°03'W., bet.secs.29 and 30.
	Over rolling mesa; through dense undergrowth.
30.00	Edge of mesa, bears N.20°W. and S.20°E.; descend.
40.00	Set a limestone, 18x6x8 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
80.00	Set a limestone, 18x6x4 ins., 12 ins. in the ground, for cor.of secs.19,20,29, and 30, marked with 2 notches on S. and 5 notches on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.

Subdivision of T.12 S., R.19 E.-Continued.

Chains	Land, mountainous and rolling mesa. Soil, sandy and white clay loam; 2nd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	East, on a random line bet. secs. 20 and 29.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.80	Intersect N. and S. line, 10 lks. S. of the cor. of secs. 20, 21, 28, and 29. Thence we run S. 89° 56' W., on a true line bet. secs. 20 and 29. Over mesa; through dense undergrowth.
10.00	Leave mesa, bears N. and S.; descend.
24.00	Bottom of hollow, 200 ft. below mesa, course N. 20° E.; ascend.
36.00	Top of ascent, 200 ft. above hollow, bears N. 35° E. and S. 35° W.; thence over rolling mesa.
39.90	Set a sandstone, 34x8x4 ins., 28 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
54.00	Leave mesa, bears N. 15° W. and S.; descend.
70.00	Bottom of hollow, 200 ft. below mesa, course N. 40° W.; ascend.
79.80	The cor. of secs. 19, 20, 29, and 30. Land, mountainous and rolling mesa and level mesa. Soil, sandy and white clay loam; 2nd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.80 chs.

Subdivision of T 12 S R 19 E -Continued

- Chains S.89° 56' W., on a random line bet. secs. 19 and 30.
- :40.00 Set temp. $\frac{1}{2}$ sec. cor. " "
- 79.88 Intersect W. bdy. of Tp, 14 lks. N. of the cor. of secs. 19, 24, 25; and 30, heretofore described.
- Thence we run
 N.89° 50' E., on a true line bet. secs. 19 and 30.
- Over mountainous land; through dense undergrowth; ascend.
- 12.50 Top of spur, 150 ft. above sec. cor., bears N.20° E. and S.20° W.; descend...
- 27.00 Bottom of Tabago Canon, 200 ft. below spur, course N.; ascend. Trail in bottom, bears with canon.
- 39.88 Set a sandstone, 20x8x5 ins., 15 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
- 42.00 Top of ascent, 300 ft. above canon, bears N. and S.; thence over level mesa.
- 53.50 Leave mesa, bears N. and S.; descend.
- 79.88 The cor. of secs. 19, 20, 29, and 30.
- Land, mountainous and level.
- Soil, sandy and clay loam; 2nd rate.
- No timber.
- Undergrowth, sage brush and shadscales.
- Good grass for grazing.
- Mountainous land, or land covered with dense undergrowth, 79.88 chs.
- October 22, 1901; At this cor. we set off 11° 00'S., on the decl. arc; and at 0 h:2 m.p.m. lm.t., observe the sun on the meridian, the resulting lat. is. 39° 45' N.
-
- N.0° 03' W., bet. secs. 19 and 20.
- Over mountainous land; through scattering undergrowth; descend.
- 10.75 Bottom of hollow, 100 ft. below sec. cor., course N.W.;

Subdivision of T. 12 S., R. 19 E.—Continued

Chains	
25.00	Top of ridge, 150 ft. above hollow, bears N.W. and S.E.; descend.
40.00	Set a limestone, 24x6x4 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
68.00	Bottom of hollow, 200 ft. below ridge, course N.20°E.; ascend. Enter dense undergrowth, bears with hollow.
80.00	Set a sandstone, 18x10x5 ins., 12 ins. in the ground, for cor.of secs. 17, 18, 19, and 20, marked with 3 notches on S. and 5 notches on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, " of cor. Pits impracticable. Land, mountainous. Soil, sandy and clay loam; 2nd rate. No timber. Undergrowth, sage brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	N.89° 56'E., on a random line bet.secs. 17 and 20.
40.00	Set temp. $\frac{1}{4}$ sec.cor.
80.00	Intersect N. and S.line, 10 lks.N.of the cor.of secs. 16, 17, 20, and 21. Thence we run ✓ West, on a true line bet. secs. 17 and 20. Over mountainous land; through dense undergrowth; ascend.
30.00	Top of ascent, 150 ft. above sec.cor., bears N. and S.; thence over rolling mesa.
40.00	Set a limestone, 18x6x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable.

Subdivision of T. 12 S., R. 19 E -Continued

- Chains 48.80 Leave mesa, bears N. and S. 25° W.; descend.
- 70.50 Bottom of hollow, 200 ft. below mesa, course N. 20° E.; ascend.
- 72.50 Trail, bears N. 30° E. and S. 30° W.
- 80.00 The cor. of secs. 17, 18, 19, and 20.
Land, mountainous and rolling mesa.
Soil, clay and gravelly loam and rocky; 2nd and 4th rate.
No timber.
Undergrowth, sage brush and shadscales.
Good grass for grazing.
Mountainous land, or land covered with dense undergrowth, 80.00 chs.
-
- S. $89^{\circ} 50' W.$, on a random line bet. secs. 18 and 19.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 79.60 Intersect W. bdy. of Tp., 5 lks. S. of the cor. of secs. 13, 18, 19, and 24, heretofore described.
Thence we run
N. $89^{\circ} 52' E.$, on a true line bet. secs. 18 and 19.
Over mountainous land; through dense undergrowth; descend.
- 3.50 Bottom of Tabago Canon, 10 ft. below sec. cor., course N. W.; ascend.
- 3.60 Trail, bears N. W. and S. E.
- 34.00 Top of ascent, 300 ft. above canon, bears N. and S.; thence over rolling mesa.
- 39.60 Set a limestone, 18x10x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
- 63.00 Leave mesa, bears N. E. and S. W.; descend.
- 79.60 The cor. of secs. 17, 18, 19, and 20.
Land, mountainous and rolling mesa.

Subdivision of T.12 S., R.19 E.-Continued.

Chains	Soil, clay loam and gravelly; 2nd and 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense under-growth, 79.60 chs.
	N.0°03'W., bet. secs. 17 and 18. Over mountainous land; through dense undergrowth; as-cend.
8.00	Top of spur, 75 ft. above sec. cor., bears N.E. and S.W.; descend.
14.40	Bottom of hollow, 100 ft. below spur, course N.E.; ascend.
27.00	Top of spur, 100 ft. above hollow, bears N.E. and S.W.; descend.
40.00	Set a limestone, 18x8x6 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
80.00	Set a limestone, 14x10x6 ins., 9 ins. in the ground, for cor. of secs. 7, 8, 17, and 18, marked with 4 notches on S. and 5 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous.
	Soil, gravelly; 3rd rate.
	No timber.
	Undergrowth, sage brush.
	Good grass for grazing.
	Mountainous land, or land covered with dense under-growth, 80.00 chs.
	East, on a random line bet. secs. 8 and 17.
40.00	Set temp. $\frac{1}{2}$ sec. cor.
79.86	Intersect N. and S. line, at the cor. of secs. 8, 9, 16, and

Subdivision of T. 12 S. R. 19 E -Continued

- Chains 17. End upon trail, take in sec. cor., course N. 75° W.
 Thence we run
 West, on a true line bet. secs. 8 and 17.
 Over mountainous land; through scattering undergrowth;
 descend.
- 9.00 Bottom of Hollow, 100 ft. below sec. cor., course N. 75° W.
 Ascend.
- 39.93 Set a limestone, 18x7x6 ins.; 12 ins. in the ground, for
 $\frac{1}{4}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of
 stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
- 55.00 Top of ridge, 200 ft. above hollow, bears N. and S.; des-
 cend.
- 70.50 Bottom of hollow, 250 ft. below ridge, course N.; ascend.
- 76.10 Trail, bears N. 10° E. and S. 10° W.
- 79.86 The cor. of secs. 7, 8, 17, and 18.
 Land, mountainous.
 Soil, white clay loam and gravelly; 2nd and 3rd rate.
 No timber.
 Undergrowth, sage brush and grease wood.
 Good grass for grazing.
 Mountainous land, 79.86 chs.
-
- S. 89° 52' W., on a random line bet. secs. 7 and 18.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 79.80 Intersect W. bdy. of Tp., 7 lks. S. of the cor. of secs.
 7, 12, 13, and 18, heretofore described.
- Thence we run
 N. 89° 55' E., on a true line bet. secs. 7 and 18.
 Over mountainous land; through dense undergrowth; as-
 cend.
- 5.75 Top of ascent, 50 ft. above sec. cor., bears N. 5° W. and
 S. 5° E.; thence over rolling mesa.
- 39.80 Set a limestone, 20x12x4 ins.; 15 ins. in the ground, for
 $\frac{1}{4}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of

Subdivision of T.12 S. R.19 E.-Continued.

Chains	stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
61.25	Leave mesa, bears N. and S.; descend.
79.80	The cor. of secs. 7, 8, 17, and 18. Land, mountainous and rolling mesa. Soil, sandy and clay loam; 2nd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.80 chs.

October 22, 1901.

October 23, 1901: At 8 h 0 m a., m.l.m.t., we set off 39° 47' N., on the lat. arc; 11° 16' S., on the decl. arc; and determine a true meridian with the solar at the cor. of secs. 7, 8, 17, and 18. Thence we run N. 0° 03' W., bet. secs. 7 and 8. Over mountainous land; through dense undergrowth; along west side of hollow.
40.00 Set a limestone, 16x7x5 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on " face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
80.00 Set a sandstone, 18x9x6. ins., 12 ins in the ground, for cor. of secs. 5, 6, 7, and 8, marked with 5 notches on S. and 5 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits. impracticable. Land, mountainous. Soil, clay loam and gravelly; 2nd and 3rd rate. No timber. Undergrowth, sage brush. Good grass for grazing. Mountainous land, or land covered with dense under-

Subdivision of T.12 S R 19 E -Continued

Chains	growth, 80.00 chs.
	East, on a random line bet. secs. 5 and 8.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.70	Intersect N. and S. line, 14 lks. N. of the cor. of secs. 4, 5, 8, and 9.
	Thence we run
	N. $89^{\circ} 54'$ W., on a true line bet. secs. 5 and 8.
	Over mountainous land; through dense undergrowth; ascend.
39.85	Top of ridge, 200 ft. above sec. cor., bears N.W. and S.E.
	Set a quartzite stone, 18x6x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
	Descend.
52.00	Begin more gradual descent, bears N. and S.
68.00	Bottom of hollow, 250 ft. below ridge, course N.; ascend gradually.
71.00	Trail, bears N. and S.
74.00	Begin steep ascent, bears N. and S.
79.70	The cor. of secs. 5, 6, 7, and 8.
	Land, mountainous.
	Soil, clay loam and gravelly; 2nd and 3rd rate.
	No timber.
	Undergrowth, sage brush and shadscales.
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth, 79.70 chs.
	&
	S. $89^{\circ} 55'$ W., on a random line bet. secs 6 and 7.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.96	Intersect W. bdy. of Ep., 2 lks. S. of the cor. of secs. 1, 6, 7, and 12, heretofore described.

Subdivision of T.12 S., R.19 E. -Continued

Chains	Thence we run N. $89^{\circ}56' E.$, on a true line bet. secs 6 and 7. Over mountainous land; through scattering undergrowth; ascend..
35.00	Top of ascent, 250 ft. above sec.cor., bears N. and S.; thence over rolling mesa. Enter dense undergrowth.
39.96	Set a quartzite stone, 18x8x6 ins., 12 ins. in the ground for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits im- practicable.
79.80	Leave mesa, bears N.W. and S.W.; descend abruptly.
79.96	The cor. of secs. 5, 6, 7, and 8. Land, mountainous. and rolling mesa. Soil, sandy. and clay loam, and gravelly ; 2nd and 3rd rate. No timber. Undergrowth, sage brush, grease wood and shadscales. Good grass for grazing. Mountainous land , or land covered with dense under- growth, 79.96 chs.
40.00	N. $0^{\circ}03' W.$, on a random line bet. secs. 5 and 6. Set temp. $\frac{1}{4}$ sec.cor.
80.20	Intersect N.bdy.of Tp., 5 lks.E. of the cor.of secs. 5, 6, 31, and 32, heretofore described. Thence we run S. $0^{\circ}05' E.$, on a true line bet. secs. 5 and 6. Over rolling mesa; through dense undergrowth.
32.50	Leave mesa, bears N.E. and S.W.; descend abruptly. Enter scattering undergrowth and leave dense under- growth.
38.00	Begin more gradual descent, bears N.E. and S.W.
40.20	Set a sandstone, 18x8x7 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impractic-

Subdivision of T. 10 S. R. 19 E. -Continued

Chains able.

44.50 Trail, bears N.E. and S.W.

55.00 Bottom of hollow, 250 ft. below mesa, course N.80° W.; ascend gradually.

60.00 Begin abrupt ascent, bears E. and W.

80.20 The cor. of secs. 5, 6, 7, and 8.
Land, mountainous and rolling mesa.
Soil, clay and gravelly loam; 2nd rate.
No timber.
Undergrowth, sage brush and shadscales.
Good grass for grazing.
Mountainous land, or land covered with dense undergrowth, 80.20 chs.
October 23, 1901: At the noon hour the sky is overcast and solar observations are impossible.

October 23, 1901.

General Description.

This township contains high mountain ridges, canons and rolling mesas, and the soil ranges from rocks to loam. The soil of the mesas and bottoms of hollows and canons is generally sandy clay or gravelly loam; 2nd rate; the remainder of the township is mostly gravelly; 3rd rate. There is a very little rocky land on the high ridges and on the slopes of the steep canons:

There is no timber in the township.

Almost the entire township is covered with a dense growth of sage brush, grease wood and shadscales.

There are no settlers in the township.

There is no water in the township at this time of year; however in winter and early spring there is sufficient water for grazing purposes.

There is no mineral in the township.

The township is valuable chiefly for winter and spring grazing purposes.

Subdivision of T.12 S., R.19 E.-Concluded.

Scott P. Stewart

John R. Stewart

U.S. Deputy Surveyors.

Volume

#

R0290

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by _____, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of _____, showing the respective capacities in which they acted:

_____, Chainman.

_____, Chainman.

_____, Moundman.

_____, Moundman.

_____, Axman.

_____, Axman.

_____, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted _____, United States Deputy Surveyor, in surveying all those parts or portions of the _____

meridian, _____ of _____, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for _____

_____, Chainman.

_____, Chainman.

_____, Moundman.

_____, Moundman.

_____, Axman.

_____, Axman.

_____, Flagman.

Subscribed and sworn to before me this _____

day of _____, 189_____



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, _____, United States Deputy Surveyor, _____, solemnly swear that, in pursuance of a contract received from United States Surveyor General for _____, bearing date of _____, day of _____, 189_____, I have well, faithfully and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for _____, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____.

K

..... of the
meridian, in the of, which are represented in the
foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly
swear that all the corners of said survey have been established and perpetuated in strict accordance with
the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor
General for and in the specific manner described in the field notes, and that
the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer
the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

United States Deputy Survey.

Subscribed by said _____, and sworn to before me
this _____ day of _____, 189



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL

The foregoing field notes of the survey of The Subdivisional Line
of Monongahela South Range, 19 East of The Salt
Lake Base & Meridian, West

executed by Scott Stewart and John Stewart
under his contract No. 200, dated April 12, 1901, 189, having been
critically examined, and the necessary corrections and explanations made, the said field notes, and
surveys they describe, are hereby approved.

Edward H. Anderson
United States Surveyor Gen.

I certify that the foregoing transcript of the field notes of the above-described surveys is

, has been correctly copied from the original notes on file in this office.

BLANK

PAGE

BLANK

PAGE

Sunday January 1902. A.M.

4-670.

J.

FIELD NOTES

OF THE SURVEY OF THE

WEST BOUNDARY

of

Township No. 11 South, Range No. 20 East,

Of the SALT LAKE BASE AND Meridian,

in the STATE OF UTAH,

AS SURVEYED BY

Scott P. Stewart and John R. Stewart, United States Deputy Surveyor,
Under their Contract No. 242, dated April 12, 1901. #89

Survey commenced October 23, 1901. #80

Survey completed October 24, 1901. #89

High
Closing

5.78 ft.
-2.20

NAMES AND DUTIES OF ASSISTANTS.

Andy J. Stewart	Chairman
Edwin A. Peay	Chairman
Vosco Call	Chairman
Hugh Conover	Chairman
Clarence S. Jarvis	Moundman
John J. Harding	Moundman
George W. Ekins	Axman
Harry Burton	Axman
Harvey R. Booth	Flagman
Gilbert Burr	Flagman

To fulminate offidante la bocca di F. P. S. P. D.

Volume

#

R0290

INDEX DIAGRAM.

Township _____, *Range* _____

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Meanders Page _____

PRELIMINARY OATHS OF ASSISTANTS.

WE, and
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the
chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that
we will report the true distances to all notable objects, and the true lengths of all lines that we assist in
measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

....., *Chainman*

....., *Chainman*

Subscribed and sworn to before me this }
day of, 189 }



WE, and
do solemnly swear that we will well and truly perform the duties of moundmen in the establishment
of corners, according to the instructions given us, to the best of our skill and ability, in the survey c

....., *Moundma*

....., *Moundma*

Subscribed and sworn to before me this }
day of, 189 }



WE, and
do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corne
and other duties, according to instructions given us, to the best of our skill and ability, in the survey c

....., *Axma*

....., *Axma*

Subscribed and sworn to before me this }
day of, 189 }



I, do solemnly swear that I will well and trul
perform the duties of flagman according to instructions given me, to the best of my skill and ability, in th
survey of

....., *Flagma*

Subscribed and sworn to before me this }
day of, 189 }



West boundary of T.11 S., R.20 E.

Survey commenced October 23, 1901; and executed with a W. and L.E. Gurley light mountain transit, No. 3, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc; which is also the least count of the latitude and declination arcs; and a W. and L.E. Gurley plain transit, No. 2, of which the horizontal limb is provided with one double vernier reading to single minutes of arc.

The instruments were examined, tested on the true meridian at Salt Lake City, found correct, and were approved by the surveyor general for Utah, the former on June 6, 1901, and the latter on May 29, 1901.

We examine the adjustments of the instruments, and correct the level and collimation errors, then to test the solar apparatus, of the No. 3 instrument, by comparing its indications resulting from solar observations made during p.m. and a.m. hours, with a true meridian established by observation on Polaris, with the No. 2 instrument, we proceed as follows:

At the cor. of Tps. 11 and 12 S., Rs. 19 and 20 E., heretofore described, latitude $39^{\circ}49'N.$, longitude $109^{\circ}46'W.$, we set off $39^{\circ}49'N.$, on the lat. arc; $11^{\circ}23'S.$, on the decl. arc; and determine a true meridian with solar and mark a point thereof on a stone, firmly set in the ground, 5.00 chs. N. of the cor.

October 23, 1901.

October 24, 1901: At 5 h 10 m a.m., l.m.t., we observe Polaris at western elongation, with the No. 2 instrument, in accordance with the Manual, and mark a point in the line thus determined, by a tack driven in a wooden plug, set in the ground, 5.00 chs. N. of the cor. At 7 h 0 m a.m., l.m.t., we lay off the azimuth of Polaris $1^{\circ}35'.5$ to the east, and mark a point in the

West boundary of T 11 S . R 20 E -Continued

- chains true meridian thus determined by cutting a small groove in the stone, already set 5.00 chs. N. of our station; this mark fall 0.31 ins. east of the true meridian determined with the solar.
- At 8 h 0 m a.m., l.m.t., we set off $39^{\circ}49'N.$; on the lat. arc; $11^{\circ}37'S.$, on the decl. arc; and determine a true meridian with solar, and mark a point therof. on the stone already set 5.00 chs. N. of our station; this mark falls 0.23 ins. east of the true meridian established by observation on Polaris.
- The solar apparatus by p.m. and a.m. observations, defines positions for true meridians, respectively about $0'16''$ west and $0'12''$ east of the true meridian established by observation on Polaris; therefore we conclude that the adjustments of the instruments are satisfactory.
- The magnetic bearing of the true meridian, at 8 h 30 m a.m., is $16^{\circ}16.8'W.$, the angle thus determined reduced by the table, page 100 of the Manual, gives the mean mag. decl. $16^{\circ}14'E.$.
- From the above described cor. we run North, bet. secs. 31 and 36.
- Over mountainous land; through dense undergrowth; along side of ridge.
- 40.00 Set a sandstone, $16 \times 10 \times 4$ ins., 11 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
- 80.00 Set a sandstone, $18 \times 9 \times 4$ ins., 12 ins. in the ground, for cor. of secs. 25, 30, 31, and 36, marked with 1 notch on S. and 5 notches on N. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous.
- Soil, clay and gravelly; 3rd rate.
- No timber.
- Undergrowth, sage brush and shadscales.

West boundary of T 17 S . R 27 E -Continued

Chains	Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	North, bet. secs. 25 and 30. Over mountainous land; through scattering undergrowth; descend gradually.
40.00	Set a sandstone, 18x8x5 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor. marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor.Pits impracticable. Enter dense undergrowth, bears N. 80° E. and S. 80° W.
50.00	Bottom of hollow, 150 ft. below sec.cor., course N. 30° W. Ascend.
80.00	Set a sandstone, 30x8x4 ins., 22 ins. in the ground, for cor.of secs. 19, 24, 25, and 30, marked with 4 notches on N. and 2 notches on S.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor.Pits impracticable. Land, mountainous. Soil, white clay loam; 2nd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	North, bet. secs. 19 and 24. Over mountainous land; through dense undergrowth; ascend gradually.
39.84	Top of ridge, 150 ft. above sec.cor., bears N.W. and S. 70° E.; descend more abruptly.
40.00	Set a limestone, 22x11x4 ins., 16 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor.Pits imprac-

West boundary of T. 11 S., R. 20 E. -Continued

Chains	ticable.
64.00	Foot of descent, 200 ft. below ridge, bears N.E. and S.W.; enter bottom of Hill Creek Canon.
64.50	Trail, bears N.E. and S.W.
71.50	Hill Creek bed (dry), 20 lks. wide, course N.E.
80.00	Set a limestone, 24x10x4 ins., 18 ins. in the ground, for cor. of secs. 13, 18, 19, and 24, marked with 3 notches on N. and 3 notches on S. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous and level canon bottom. Soil, white clay loam and gravelly; 2nd and 3rd rate. No timber. Undergrowth, sage brush and shadscales and greasewood. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	North, bet. secs. 13 and 18. Over level canon bottom; through dense undergrowth.
11.00	Foot of perpendicular ledge, 20 ft. high, bears N. 60° W. and S. 60° E.; leave canon bottom; ascend.
34.87	Foot of perpendicular ledge, 100 ft. high, bears N.E. and S.W.
40.00	Top of ridge, 350 ft. above canon, bears N. 10° E. and S. 15° W. Set a limestone, 24x10x4 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Descend.
68.90	Bottom of hollow, 200 ft. below ridge, course N. 20° E.; ascend.
80.00	Top of ridge, 125 ft. above hollow, bears N.E. and S.W. Set a sandstone, 16x7x4 ins., 11 ins. in the ground, for cor. of secs. 7, 12, 13, and 18, marked with 2 notches on

West boundary of T. 11 S., R. 20 E. - Continued.

Chains N. and 4 notches on S. edges; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
Land, mountainous and level canon bottom.
Soil, white clay loam and gravelly, 3rd. rate.
No timber.
Undergrowth, sage brush and shadscales.
Good grass for grazing.
Mountainous land, or land covered with dense undergrowth, 80.00 chains.

North, bet. secs. 7 and 12.
Over mountainous land; through scattering undergrowth;
descend.
4.00 Bottom of hollow, 100 ft. below sec. cor., course S.
 75° E.; ascend.
16.00 Top of ridge, 250 ft. above hollow, bears N. 80° E. and
S. 80° W.; descend.
40.00 Set a limestone, 18x10x4 ins., 12 ins. in the ground,
for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound
of stone, 2ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits
impracticable.
62.50 Bottom of hollow, 50 ft. below ridge, course N. 20° E.;
ascend.
80.00 Set a limestone, 20x10x5 ins., 15 ins. in the ground,
for cor. of secs. 1, 6, 7, and 12, marked with 1 notch
(5 notches on)
on N. and S. edges; and raise a mound of stone, 2 ft.
base, $1\frac{1}{2}$ ft. high W. of cor. Pits impracticable.
Land, mountainous.
Soil, clay loam and gravelly, 2nd. and 3rd. rate.
No timber.
Undergrowth, sage brush and shadscales.
Good grass for grazing.
Mountainous land, 80.00 chs.

West boundary of T. 11 S. R. 20 E. - Concluded.

Chains	North bet. secs. 1 and 6. Over mountainous land; through dense undergrowth; ascend.
5.00	Top of ascent, 100 ft. above sec.cor. bears N.E. and S.W.; thence over rolling mesa.
40.00	Set a limestone, 18x7x5 ins., 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
78.52	Intersect the second Standard Parallel South 2.20 chs. N. $89^{\circ}48'W.$, of the Standard $\frac{1}{4}$ sec.cor., on S.side of sec. 36, T.10 S., R. 19 E.; which is a sandstone, 8x10x6 ins., aboveground, firmly set and marked and witnessed as described by the surveyor general. Set a sandstone, 24x7x5 ins., 18 ins. in theground for closing corner of Tps.11 S., Rs. 19 and 20 E., marked C.C.11 S., on S., 20 E.on E., and 19 E. on W. faces;with 6 grooves on S., E. and W. faces;and raise amound ofstone 2 ft. base, $1\frac{1}{2}$ ft. high, S.of cor. Pits impracticable. Land, mountainous and r0lling mesa. Soil, white clay loam and gravelly, 3rd.rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense under- growth, 78.52 chs.

11 a.m. October 24, 1901.

John R. Stewart

John R. Stewart

A. J. Deputy Surveyor.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by _____

_____, United States Deputy Surveyor, to assist in running, measuring, and

marking the lines and corners described in the foregoing field notes of the survey of _____

showing the respective capacities in which they acted:

R. H. Jr., *Chairman.*

B. J., *Chairman.*

M. A., *Moundman.*

M. A., *Moundman.*

A. M., *Axman.*

A. M., *Axman.*

F., *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted _____

_____, United States Deputy Surveyor, in surveying all

those parts or portions of the _____

of the _____

meridian, _____, which are represented
in the foregoing field notes as having been surveyed by him and under his direction; and that said survey
has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the
corner monuments established, according to the instructions furnished by the United States Surveyor
General for _____

S. J. Jr., *Chairman.*

B. J., *Chairman.*

M. A., *Moundman.*

M. A., *Moundman.*

A. M., *Axman.*

A. M., *Axman.*

F., *Flagman.*

subscribed and sworn to before me this _____

day of _____, 189 _____



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from the United States Surveyor General for bearing date of the day of 189 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of of the meridian, in the of which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

United States Deputy Surveyor.

Subscribed by said and sworn to before me,

this day of 189 .

○○○○○
○ SEAL ○
○○○○○

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL.

John S. Calhoun, Deputy Surveyor, N.Y.
The foregoing field notes of the survey of *The West Boundary of
Township 11 South Range 20 East of the
Dakota Base & Madison Valley*

executed by *Scott Stewart and John S. Stewart*
under his contract No. 242, dated *Aug 12, 1881*, 189 , having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Edward F. Knobell, Jr.
United States Surveyor General

I certify that the foregoing transcript of the field notes of the above-described surveys in has been correctly copied from the original notes on file in this office.

United States Surveyor General

BLANK

PAGE

BLANK

PAGE

4—679.

FIELD NOTES

RETRACEMENT & RECOVERY OF THE SKIN OF THE

SECOND STANDARD PARALLEL SOUTH

through

Range No. 20 East.

Of the ... SALT LAKE BASE AND ... Meridian,

In the STATE OF UTAH,

AS SURVEYED BY

Scott P. Stewart and John R. Stewart, United States Deputy Surveyors
under their Contract No. 842, dated April 12, 1882.

Under his Contract No. 242, dated April 12, 1901, J. S. K.

27

1000 ft. 4-25-27th 1000 ft.
" " 1000 ft. 4-26-10th

NAMES AND DUTIES OF ASSISTANTS.

Andy J. Stewart.....	Chairman
Edwin A. Peay	Chairman
Vosco Call.....	Chairman
Hugh Conover.....	Chairman
Clarence S. Jarvis.....	Moundman
John J. Harding	Moundman
George W. Ekins.....	Axman
Harry Burton.....	Axman
Harvey R. Booth.....	Flagman
Gilbet Burr.....	Flagman

In full measure of fidelity to the D. F. 1051 program

INDEX DIAGRAM.

Township....., Range.....

6	4	4	8	2	1
7	8	9	10	11	12
16	17	16	16	14	13
19	20	21	22	23	24
20	29	25	27	26	25
31	32	33	34	35	36

Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

We, and do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by striking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

, Chairman.

, Chairman.

Subscribed and sworn to before me this }
day of , 189 }



We, and do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

, Moundman.

, Moundman.

Subscribed and sworn to before me this }
day of , 189 }



We, and do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

, Axman.

, Axman.

Subscribed and sworn to before me this }
day of , 189 }



I, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

, Flagman.

Subscribed and sworn to before me this }
day of , 189 }



acement of 2nd Standard Parallel South thorough 20 East.

Note: Survey commenced October 24, 1901.

For tests of adjustment of instruments see West bdy. of T.11 S.R.20 E. On account of the connection just made on the standard $\frac{1}{4}$ sec.cor.on S.bdy.of sec.36 we are lead to believe that the 2nd Standard Parallel is out in alinement and measurement therefore we proceed to retrace the boundary as follows;

October 24. 1901; At the noon hour the sky is overcast and solar observations are impossible.

From the closing cor.of Tp.11 S.R.19 and 20 E. just established we run

East on a retracement line along a part of W. $\frac{1}{2}$ of the south side of sec.36, T.10 S.R.19 E.,

2.20 The Standard $\frac{1}{4}$ sec.cor.on south side sec.36, heretofore described 1 lk.N.of Cor., the course is therefore N.89° 48' W. East ,on a retracement line along S.side of E. $\frac{1}{2}$ of sec.36.

39.90 The standard cor.of Tps.10 S.Rs. 19 and 20 E. which is a sandstone, 18x20x4 ins.above ground,firmlly set, and marked and witnessed as described by the surveyor general,bears S.2 lks.dist., the course of this line is therefore S.89° 58' E.

From the standard cor.of Tps.10 S.Rs.19 and 20 E.

heretofore described we run

East on a retracement line along S.bdy,sec.31.

61.03 Find no $\frac{1}{4}$ sec.cor.Falls in triangulation of original survey. We set temp.Standard $\frac{1}{4}$ sec.cor.

101.03 Find no trace of standard cor. of secs.31 and 32.Falls in triangulation of original survey.

Set temp. standard cor. of secs. 31 and 32.

141.03 Find no trace of standard $\frac{1}{4}$ sec. cor.Falls in triangulation of original survey.

Set temp. standard $\frac{1}{4}$ sec. cor.

174.32 Fall 10 lks.N.of standard cor.of secs.32 and 33 which is a sandstone 15x10x10 ins., firmly set and marked and witnessed as described by the surveyor general.

East, on retracement line along S.bdy. of sec. 33.

40.00 Find no trace of standard $\frac{1}{4}$ sec.cor.Falls in triang-

Retracement of 2nd Standard Parallel South through 20 East.

- Chains. lation of original survey. Set temp. standard $\frac{1}{4}$ sec. cor.
- 80.00 Find no trace of standard cor. of secs. 33 and 34, after diligent search. Falls in triangulation of original survey. Set temp. standard $\frac{1}{4}$ sec. cor.
- 120.00 Find no trace of standard $\frac{1}{4}$ sec. cor. Was not set in orginal survey.
- 146.50 Find no trace of witness cor. to secs. 34 and 35, after diligent search.
- 162.58 Fall 2.65 chs. South of standard cor. of secs. 34 and 35, which is a sandstone 10x10x4 ins. above ground well set and marked and witnessed as described by the surveyor general.
- East on a retracement line along south bdy. sec. 35.
- 19.90 Fall 15 lks. N. of 1-16 sec. cor. which is a sandstone 10x10x4 ins. well set, and marked and witnessed as described by the surveyor general. The course of this line is therefore S. $89^{\circ} 34'$ E. 19.90 chs.
- We offset over said corner and run East on a retracement line along south bdy. of sec. 35
- 20.55 Fall 2 lks. S. of standard $\frac{1}{4}$ sec. cor. which is a sand stone 12x12x4. ins. above ground marked and witnessed as described by the surveyor general. The course of this line is therefore N. $89^{\circ} 57'$ E. 20.55 chs.
- We offset over said corner and run
- East on a retracement line along S. bdy. of sec. 35.
- 20.00 Fall 5 lks. S. of 1-16 sec. cor. which is a sandstone 10x10x4 ins. above ground, marked and witnessed as described by the surveyor general. The course of this line is therefore N. $89^{\circ} 51'$ E. 20.00 chs.
- We offset over said corner and run
- East on a retracement line along S. bdy. of sec. 35.
- 20.31 Fall 15 lks. S. of standard cor. of secs. 35 and 36, which is a sandstone 8x8x6 ins., above ground, marked and witnessed as described by the surveyor general. The course of this line is therefore N. $89^{\circ} 34'$ E.
- 20.31 chs.

October 24, 1901.

retracement of 2nd Standard Parallel South through Range 20 East.

Chains. October 25, 1901: At 8 h. 2 m a.m., l.m.t. we set off $39^{\circ} 54'$ N. on the lat. arc; $11^{\circ} 58' S.$, on the decl. arc; and determine a true meridian, with the solar at the standard cor. of secs. 35 and 36. Thence we run

East, on a retracement line along S.bdy. of sec. 36.

20.44 Fall 5 lks. S. of closing corner for Tp. 11 S.Rs. 20 and 21 E. heretofore described.

The course of this line is therefore $N.89^{\circ} 51'E.$

20.44 chs.

Note.- On account of finding the corners missing on the S.bdys. of secs. 33 and 34 we now return to the standard cor. of secs. 34 and 35 heretofore described and run on a true line for the standard cor. of secs. 32 and 33 placing the corners at proportional distances.

Thence we run $S.89^{\circ} 04'W.$ on a true resurvey line along S.bdy. of sec. 34. Over rolling mesa.

12.65 Edge of mesa bears $N.60^{\circ} W.$ and $S.60^{\circ} E.$ Descend.

22.00 Bottom of hollow, 200 ft. below mesa course $N.50^{\circ} W.$; Ascend.

40.65 Top of ridge 200 ft. above hollow bears $N.20^{\circ} W.$ and $S.20^{\circ} E.$

Set a sand stone 18x10x6 ins. 12 ins. in the ground for standard $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ S.C. on N.face; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of Cor. Pits impracticable.

49.00 Bottom of hollow 150 ft. below ridge course $N.30^{\circ} W.$; Ascend.

52.50 Top of ridge 50 ft. above hollow bears $N.10^{\circ} W.$ and $S.$; descend.

56.50 Bottom of hollow 70 ft. below ridge course $N.10^{\circ} W.$; ascend.

81.30 Set a lime stone 18x10x5 ins., 12 ins. in the ground for standard cor. of secs. 33 and 34 marked with 3 grooves on E. and 3 grooves on W. and S.C. on N.faces;

6865
1365

Resurvey of 2nd Standard Parallel South through Range 20 East.-Con't'd.

Chains.	and raise a mound of stone $2\frac{1}{2}$ ft. base, 2 ft. high N. of cor. Pits impracticable. Land, mountainous and level. Soil, white clay and gravel, 3rd. rate. No timber. Very little grass. Mountainous land, 68.65 chains.
---------	---

true
S. $89^{\circ} 04' W.$ on a resurvey line along the S.bdy.of sec.

33.

Over mountainous land, ascend.

3.00 Top of ridge 20 ft. above standard cor. bears N. and S. descend.

11.00 Foot of descent. Enter bottom of Willow Creek canon 200 ft. below ridge bears N. and S. Enter dense undergrowth.

18.00 Creek bed dry course N.

23.00 Old road bears N. $20^{\circ} W.$ and S. $20^{\circ} E.$

35.50 Leave canon bottom bears N. and S. Leave dense undergrowth, ascend abruptly.

40.65 Set a limestone $24 \times 12 \times 8$ ins., 18 ins. in the ground for standard $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ S.C. on N. face; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.

42.00 Top of ridge 200 ft. above canon bears N. and S.; descend.

53.50 Bottom of hollow 70 ft. below ridge course N. $35^{\circ} E.$; ascend.

81.30 Top of ridge 200 ft. above hollow bears N. and S. This is the divide between Hill Creek and Willow Creek Canons.

The standard cor. of secs. 32 and 33 heretofore described.

Land, mountainous and nearly level.

Soil, clay and gravel, 3rd. rate.

Very little grass.

Survey of 2nd Standard Parallel South through Range 20 East. Cont'd.

Chains.	No timber. Undergrowth, greese wood and willows. Mountainous land, or land covered with dense under-growth. 81.30 chs.
	Note. On account of finding the corners missing on the S.bdy, of secs. 31 and 32 we commence at the above described corner and run N.89° 58' W. on a true line from the standard corner of Tps. 10 S.Rs.19 and 20 E., placing the fractional distance in the western half mile.
	From standard cor. of secs. 32 and 33 we run N.89° 58' W. on a true resurvey line along S.bdy. of sec. 32.
	Over mountainous land descend abruptly.
14.00	Foot of descent 250 ft. below ridge; enter Hill Creek. Canon bears N. and S. Enter dense undergrowth.
15.50	Trail bears N. and S.
28.00	Creek bed, dry, bears N. and S.
38.00	Leave canon bottom, bears N.10° E. and S.10° W.; leave dense undergrowth; ascend.
40.00	Set a limestone 20x10x6 ins., 15 ins. in the ground for standard $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ S.C. on N.face; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of Cor. Pits impracticable.
43.00	Top of ridge 50 ft. above canon bears N.30° E. and S.30° W., descend.
50.00	Bottom of hollow 40 ft. below ridge, course N.30° E.; ascend.
58.50	Top of ridge 150 ft. above hollow, bears N.20° E. and S.20° W.; descend.
68.20	Bottom of hollow 100 ft. below ridge course N.10° E.; ascend.
80.00	Set a limestone 18x10x6, 12 ins. inthe ground for standard cor. of secs. 31 and 32 marked with 5 grooves on E. and 1 groove on W. and S.C.on N.faces; and raise

See conclusion notes pages 1, 2 & 3

Resurvey of 2nd Standard Parallel South through Range 20 East.-Cont'd.

Chains. a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor.
Pits impracticable.
Land, mountainous and nearly level.
Soil, white clay and gravel, 3rd. rate.
No timber.
Very little grass.
Undergrowth, greese woods.
Mountainous land or land covered with dense undergrowth
80.00 chains.

N.89° 58'W. on a true resurvey line along S.bdy., of sec.
31.
Over mountainous land, ascend.
15.00 Top of ridge 200 ft. above standard cor. bears N.20°
E. and S.20°W.; descend.
19.50 Bottom of hollow 40 ft. below ridge, course N.10°E.
ascend.
30.00 Top of ridge 120 ft. above hollow, bears N. and S.;
descend.
34.00 Bottom of hollow 60 ft. below ridge, course N.30°E.;
ascend.
40.00 Set a sandstone 20x9x6 ins., 15 ins. in the ground
for standard $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ S.C.on N.face; and
raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high N.of
cor. Pits impracticable.
51.00 Top of ascent 200 ft. above hollow, bears N.E. and S.;
thence over rolling mesa. Enter dense undergrowth.
54.32 The standard corner of Tp. 10 S, Rs. 19 and 20 E.
heretofore described.
Land, mountainous and nearly level.
Soil, white clay and gravel, 3rd. rate.
No timber.
Very little grass.
Undergrowth, sage and shadscales.
Mountainous land or land covered with dense undergrowth
54.32 chains.

See corrected notes pages 3 and 4

Boundaries of T. 11 S. R. 20 E.-Continued.

Latitudes, Departures and Closing Errors.

Line designated	True Bearing	Distance	Latitudes		Departures	
			N.	S.	E.	W.
		chs.	chs.	chs.	chs.	chs.
E. bdy. T. 11 S. R. 20 E.	South	480.00		480.00		
S. bdy. T. 11 S. R. 20 E.	West	479.90				479.90
W. bdy. T. 11 S. R. 20 E.	North	478.52	478.52			
N. bdy. T. 11 S. R. 20 E.	S. 89° 48' E.	2.20		.01	2.20	
N. bdy. T. 11 S. R. 20 E.	S. 89° 58' E.	214.22		.12	214.22	
N. bdy. T. 11 S. R. 20 E.	N. 89° 04' E.	162.60	2.65		162.58	
N. bdy. T. 11 S. R. 20 E.	S. 89° 34' E.	19.90		.15	19.90	
N. bdy. T. 11 S. R. 20 E.	N. 89° 57' E.	20.55	.02		20.55	
N. bdy. T. 11 S. R. 20 E.	N. 89° 51' E.	20.00	.05		20.00	
N. bdy. T. 11 S. R. 20 E.	N. 89° 34' E.	20.31	.15		20.31	
N. bdy. T. 11 S. R. 20 E.	N. 89° 51' E.	20.44	.05		20.44	
Convergency					.60	
Totals		481.44	480.28	480.80	479.90	
		480.28		479.90		
Error in lat.		1.16				
Error in dep.					.90	

G-E-N-E-R-A-L D-E-S-C-R-I-P-T-I-O-N.

.....000.....

This township is nearly all mountainous and partly covered with dense undergrowth. There is very little grass in the township. There is also a very little scrubby cedar timber. There is no water in the township at this season of the year.

John R. Stewart
 John R. Stewart
U. S. Deputy Surveyors.

October 25, 1901.

Boundaries of T. 11 S. R. 20 E. -Concluded.

Note:-

We have reported all the one sixteenth corners found by us on this boundary, and it is our belief that the others were not set in the original survey.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by _____, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey, showing the respective capacities in which they acted:

Officer, Chairman.

Officer, Chairman.

Officer, Moundman.

Officer, Moundman.

Arman.

Arman.

Infantry Officer, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted _____, United States Deputy Surveyor, in surveying all those parts or portions of the _____

of the _____

meridian, _____ of _____, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for _____

Officer, Chairman.

Officer, Chairman.

Officer, Moundman.

Officer, Moundman.

Arman.

Arman.

Infantry Officer, Flagman.

Subscribed and sworn to before me this _____

day of _____, 189_____

XXXXXX
S. S. S. S. S.
XXXXXX

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, _____, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from _____, United States Surveyor General for _____, bearing date of _____, day of _____, 189_____, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for _____, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____, of the meridian, in the _____ of _____, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for _____, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

[Signature]
United States Deputy Surveyor

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 189 }



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, February 5th, 1893
The foregoing field notes of the survey of the Second Standard Parallel
South through Range 20 East of the Salt Lake Base
I hereby approve. *[Signature]*

executed by *Scott P. Stewart* and *John P. Stewart*
under his contract No. *202*, dated *April 12, 1891*, 189_____, having been
critically examined, and the necessary corrections and explanations made, the said field notes, and the
resurveys they describe, are hereby approved.

Edward W. Anderson
United States Surveyor General

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

United States Surveyor Ge. ..

BLANK

PAGE

BLANK

PAGE

CORRECTIVE
FIELD NOTES

X.3.B.
OF THE ^{RE}SURVEY OF THE

SECOND STANDARD PARALLEL SOUTH

THROUGH

RANGE 20 EAST

Of the Salt Lake Base and Meridian,

STATE OF UTAH

AS SURVEYED BY

Scott P. Stewart and John R. Stewart United States Deputy Surveyors
under his Contract No. 242 dated April 12, 1901 489--
Survey commenced May 31, 1903 189
Survey completed May 31, 1903 189

NAMES AND DUTIES OF ASSISTANTS.

Edwin H. Peay - Chairman.

Clarence S. Jarvis - Chairman,

John G. Smith - Flagman, ^{or} Moundman

INDEX DIAGRAM.

Township _____, *Range* _____

6	5	4	3	2	1
7	8	9	10	11	12
18	17	10	15	14	13
19	20	21	22	23	24
30	20	28	27	26	25
31	32	33	34	35	30

Meanders Page _____

PRELIMINARY OATHS OF ASSISTANTS.

WE, Edwin A. Peay — and Clarence S. Jarvis — do solemnly swear that we will well and faithfully execute the duties of chainmen, that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; we will report the true distances to all notable objects, and the true lengths of all lines that we assist measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of the Second Standard Parallel South through Range 20 East of the Salt Lake Base and Meridian, Utah.

Edwin A. Peay, Chainman

Clarence S. Jarvis, Chainman

Subscribed and sworn to before me this 30th day of May, 1903.



Scott P. Stewart

U.S. Deputy Surveyor.

WE, — and — do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey

, Moundman

, Moundman

Subscribed and sworn to before me this — day of —, 189 —



WE, — and — do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey

, Axeman

, Axeman

Subscribed and sworn to before me this — day of —, 189 —



1. John G. Smith —, do solemnly swear that I will well and truly perform the duties of flagman, according to instructions given me, to the best of my skill and ability, in the survey of the Second Standard Parallel South through Range 20 East of the Salt Lake Base and Meridian, Utah.

John G. Smith, Flagman

Subscribed and sworn to before me this 30th day of May, 1903.



Scott P. Stewart

U.S. Deputy Surveyor.

CORRECTIVE NOTES RESURVEY SECOND STANDARD PARALLEL SOUTH THROUGH R. 20 E.

CHAINS	<p>Corrective resurvey commenced May 31, 1903, and executed with a W. & H. E. Gurley light mountain transit No. 31, .</p> <p>The instrument was examined, tested on the true meridian at Salt Lake City, Utah, June 14, 1902, found correct and was approved by the U. S. Surveyor General for Utah .</p> <p>At the standard cor. of secs 32 and 33 T. 10 S. R. 20 E. which is a sandstone 15x10x10 ins., firmly set and marked and witnessed as described by the surveyor general, I set off $39^{\circ} 54' N.$ on the lat. arc, $21^{\circ} 49' N.$ on the decl. arc, and at 7 h. 0 m. a. m. l. n. t. determine a true meridian with the solar at the above described corner.</p> <p>Note:- This corner is on top of a ridge bearing N. and S., and a flag which I place on the corner of Tps. 10 . . . S. Rgs. 19 and 20 E., is plainly visible and I find it bears from this corner $N. 89^{\circ} 58' W.$, therefore I run,</p> <p>M. $89^{\circ} 58' W.$ along S. bdy. sec. 32, on a corrective resurvey line.</p> <p>Over mountainous land; descend abruptly.</p>
14.00	Foot of descent, 250 ft. below ridge; enter Hill Creek Canon bears N. and S. Enter dense undergrowth.
15.50	Trail bears N. and S.
28.00	Creek bed, dry, bears N. and S.
36.00	Leave canon bottom bears $N. 10^{\circ} E.$ and $S. 10^{\circ} W.$; leave dense undergrowth; ascend.
38.50	Proportionate measurement Set a limestone 20x10x6 ins., 15. ins. in the ground, for reestablished standard $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ S C on N. face; and raised a mound of stones 2 ft. base $1\frac{1}{2}$ ft. high N. of cor.; pits impracticable.

CORRECTIVE NOTES RESURVEY SECOND STANDARD PARALLEL SOUTH THROUGH R.

CHAINS	
40.00	The erroneous Standard $\frac{1}{4}$ sec.cor., on S.bdy.of sec. 32, set by us. We destroy all traces of this corner.
43.00	Top of ridge, 50 ft. above canon bears N.30°E. and S. 30°W.; descend.
50.00	Bottom of hollow, 40 ft. below ridge, course N.30°E. Ascend.
57.00	The closing cor.of secs.4 and 5 T.11 S.R.20 E., which is a sandstone 5x10x5 ins.above ground, marked and witnessed as described in our original notes,
58.50	Top of ridge 150 ft.above hollow,bears N.20°E. and S.20°W.;descend..
68.20	Bottom of hollow 100 ft.below ridge, course N.10°E. Ascend.
77.04	Proportionate measurement, Set a limestone 18x10x6 ins.12 ins.in.the ground,for reestablished standard cor.of secs.31 and 32,marked with 5 grooves on E.and 1 groove on W.and S.C.on N.faces;and raise a mound of stone 2 ft.base $1\frac{1}{2}$ ft. high N.of.cor.;pits impracticable. Note: The erroneous standard cor.of secs.31 and 32 set by us,bears N.89°58'W.2.96 chs.dist. We destroy all traces.of this corner. Land mountainous and nearly level. Soil white clay and gravelly;3rd.rate. No timber. Very little grass. Undergrowth greasewood. Mountainous land,or.land covered with dense undergrowth 77.04 chs.

N.89°58'W.on a true resurvey line, long
Along S.bdy.of sec.31
Over mountainous land;ascend.

CORRECTED NOTES RESURVEY SECOND STANDARD PARALLEL SOUTH THROUGH R.20 E.

CHAINS

- 17.96 Top of ridge 220 ft. above reestablished standard sec.cor., bears N.20°E. and S.20°W.; descend.
- 22.46 Bottom of hollow, 40 ft. below ridge, course N.10°E. Ascend.
- 32.96 Top of ridge 120 ft. above hollow, bears N. and S.; Descend.
- 36.96 Bottom of hollow, 60 ft. below ridge, course N.30°E. Ascend.
- 38.52 Proportionate measurement,
Set a sandstone 18x8x6 ins. 12 ins. in the ground, for reestablished standard $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ S.C. on N.face, and raised a mound of stones 2 ft. base $1\frac{1}{2}$ ft. high N.of cor.; pits impracticable.
- 42.96 The erroneous standard $\frac{1}{4}$ sec.cor., on S.bdy.sec.31 set by us.
We destroy all traces of this corner.
- 53.96 Top of ascent, 200 ft. above hollow, bears N.E. and S. Thence over rolling mesa;
Enter dense undergrowth.
- 59.82 The closing corner of secs.5 and 6 T.11 S.R.20 E. which is a sandstone 6x10x5 ins. above ground, firmly set and marked and witnessed as described in our original notes.
- 97.29 The Standard corner of Tps10 S.R.20 E., which is a sandstone 18x20x4 ins. above ground, firmly set and marked and witnessed as described by the surveyor general.
Land mountainous and nearly level.
Soil white clay and gravel; 3rd. rate.
No timber.
Very little grass.
Undergrowth sage and shad scale.
Mountainous land or land covered with dense undergrowth 97.29 chs.

There being no notary public, or other officer authorized to administer oaths, within reasonable distance, at the time of making this survey; therefore, to save time and expense, I administer the necessary preliminary and final oaths myself.

Scott P. Stewart

U.S. Deputy Surveyor.

Scott P. Stewart

John R. Stewart

U. S. Deputy Surveyor.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Scott P. Stewart and John R. Stewart, United States Deputy Surveyors to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of Second Standard Parallel South through Range 20 East of the Salt Lake Base and Meridian, Utah, showing the respective capacities in which they acted:

Edwin A. Peay - , Chainman.
Clarence S. Jarvis - , Chainman.
John G. Smith - Flagman, Moundman.
- , Moundman.
- , Axman.
- , Axman.
- , Axman.
- , Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Scott P. Stewart and John R. Stewart, United States Deputy Surveyors in surveying all those parts or portions of the Second Standard Parallel South through Range 20 East of the Salt Lake Base and Meridian, State of Utah, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for Utah.

Edwin A. Peay. , Chainman.
Clarence S. Jarvis. , Chainman.
- , Moundman.
- , Moundman.
- , Axman.
- , Axman.
John G. Smith. , Flagman, Moundman.

Subscribed and sworn to before me this 1st day of June, 1903. }



Scott P. Stewart

U. S. Deputy Surveyor.

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

We, Scott P. Stewart and John R. Stewart, United States Deputy Surveyors, do solemnly swear that, in pursuance of a contract received from Edward H. Anderson, United States Surveyor General for Utah, bearing date of April 12, 1901, we have well, faithfully, and truly, in proper persons and in strict conformity with the instructions furnished by the United States Surveyor General for Utah, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of Second Standard Parallel South through Range 20 East.

of the Salt Lake
Base meridian, in the State of Utah, which are represented in the foregoing field notes as having been surveyed by us, and under our direction; and we do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for Utah, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, we will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Scott P. Stewart and

John R. Stewart, United States Deputy Surveyor

Subscribed by said John R. Stewart, and sworn to before me,

this 5 day of June, 1903.

000000
SEAL
000000

Edward H. Cuddeback,
U.S. Surveyor General

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, April 11, 1903, D.W.C.
The foregoing field notes of the survey of the Second Standard Parallel
through Range 20 East of the Salt Lake Basem
Contract No. 142, dated April 12, 1901, having been
critically examined, and the necessary corrections and explanations made, the said field notes, and
surveys they describe, are hereby approved.

executed by Scott P. Stewart and John R. Stewart,
under the Contract No. 142, dated April 12, 1901, 1891, having been
critically examined, and the necessary corrections and explanations made, the said field notes, and
surveys they describe, are hereby approved.

Edward H. Cuddeback,
United States Surveyor General

I certify that the foregoing transcript of the field notes of the above-described surveys in
has been correctly copied from the original notes on file in this office.

United States Surveyor General

BLANK

PAGE

BLANK

PAGE

FIELD NOTES

N.Y.O. OF THE SURVEY OF THE

SUBDIVISION

of

Township No. 11 South, Range No. 20 East,

Of the SALT LAKE BASE AND Meridian,

in the STATE OF UTAH,

AS SURVEYED BY

Scott P. Stewart and John R. Stewart, United States Deputy Surveyors,

Under their Contract No. 242, dated April 12, 1901, XSAK

Survey commenced October 25, 1901, XSAK

Survey completed November 1, 1901, XSAK

G-161

Aug 59-76.29'

C. C. S.

L 12 91

NAMES AND DUTIES OF ASSISTANTS.

Andy J. Stewart Chairman

Edwin A. Peay Chairman

Vosco Call Chairman

Hugh Conover Chairman

Clarence S. Jarvis Moundman

John J. Harding Moundman

George W. Ekins Axman

Harry Burton Axman

Harvey R. Booth Flagman

Gilbert Burr Flagman

*To fulfill my affidavit as Coach W. J. F. 155 P.C.
6-151*

INDEX DIAGRAM.

Township _____, *Range* _____

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Meanders Page _____

PRELIMINARY OATHS OF ASSISTANTS.

WE, _____ and _____
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey,

_____, Chainm.

_____, Chainm.

Subscribed and sworn to before me this _____
day of _____, 189 _____ }



WE, _____ and _____
do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey,

_____, Moundm.

_____, Moundm.

Subscribed and sworn to before me this _____
day of _____, 189 _____ }



WE, _____ and _____
do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey,

_____, Axm.

_____, Axm.

Subscribed and sworn to before me this _____
day of _____, 189 _____ }



I, _____, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of _____

_____, Flagm.

Subscribed and sworn to before me this _____
day of _____, 189 _____ }



Subdivision of T.11 S., R.20 E.

Chains Survey commenced October 25, 1901, and executed with a W. and L.E. Gurley light mountain transit, No. 3, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc; which is also the least count of the latitude and declination arcs; and a W. and L.E. Gurley plain transit, No. 2, of which the horizontal limb is provided with one double vernier, reading to single minutes of arc.

The instruments were examined, tested on the true meridian at Salt Lake City, found correct, and were approved by the surveyor general for Utah, the former on June 6, 1901, and the latter on May 29, 1901.

We examine the adjustments of the instruments and correct the level and collimation errors, then, to test the solar apparatus of the No. 3 instrument, by comparing its indications resulting from solar observations made during p.m. and a.m. hours, with a true meridian established by observation on Polaris, we proceed as follows; with the No. 2 instrument;

At the cor. or secs. 1, 2, 35, and 36, on S. bdy. of Tp., heretofore described, latitude $39^{\circ} 49' N.$, longitude $109^{\circ} 40' W.$, we set off $39^{\circ} 49' N.$, on the lat. arc; $12^{\circ} 05' S.$, on the decl. arc; and determine a true meridian with the solar, and mark a point thereof on a stone, firmly set in the ground, 5.00 chs. N. of the cor.

October 25, 1901.

October 26, 1901: At 4 h 59 m a.m., l.m.t., we observe Polaris at western elongation, with the No. 2 instrument, in accordance with the Manual, and mark a point in the line thus determined, by a tack in a wooden plug, set in the ground, 5.00 chs. N. of the cor.

At 7 h 0 m a.m., l.m.t., we lay off the azimuth of Polaris $1^{\circ} 35.5'$ to the east, and mark a point in the

Subdivision of T.11 S., R.20 E.-Continued.

Chains true meridian thus determined, by cutting a small groove in the stone already set 5.00 chs. North of the cor.; this mark falls 0.38 ins. east of the true meridian determined with the solar.

At 8 h 0 m a.m., l.m.t., we set off $39^{\circ}49'N.$, on the lat. arc; $12^{\circ}18'S.$, on the decl. arc; and mark a point in the true meridian determined with the solar, by a cross on the stone already set 5.00 chs. N. of the cor.; this mark falls 0.24 ins. east of the true meridian established by observation on Polaris.

The solar apparatus by p.m. and a.m. observations, defines positions for true meridians, respectively about $0'20''$ west and $0'13''$ east of the true meridian established by Polaris observation; therefore we conclude that the adjustments of the instruments are satisfactory.

The magnetic bearing of the true meridian at 8 h 30 m a.m. is $16^{\circ}16.8'W.$, the angle thus determined, reduced by the table page 100 of the Manual, gives the mean mag. decl. $16^{\circ}14'E.$.

From the above described cor.

We run

N. $0^{\circ}01'W.$, bet. secs. 35 and 36.

Over mountainous land; through scattering undergrowth.

Ascend.

10.00 Top of ridge, 100 ft. above sec. cor., bears N. $50^{\circ}E.$ and S. $50^{\circ}W.$; descend.

30.00 Bottom of hollow, 150 ft. below ridge, course N. $40^{\circ}E.$; ascend.

40.00 Set a sandstone, 20x6x4 ins., 15 ins. in the ground, for sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

45.00 Top of ridge, 100 ft. above hollow, bears N.E. and S.W.; descend.

75.00 Bottom of hollow, 150 ft. below ridge, course N.E.; as-

Subdivision of T.11 S., R. 20. E. -Continued.

- Chains descend.
- 80.00 Set a sandstone, 24x12x5 ins., 18 ins. in the ground, for cor. of secs. 25, 26, 35, and 36, marked with 1 notch on S. and 1 notch on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
- Land, mountainous.
- Soil, sandy and gravelly loam; 2nd rate.
- No timber.
- Undergrowth, sage brush and shadscales.
- Good grass for grazing.
- Mountainous land, 80.00 chs.
-
- East, on a random line bet. secs. 25 and 36.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 80.18 Intersect E. bdy. of Tp., or Green River Guide Meridian, 10 lks. S. of the cor. of secs. 25, 30, 31, and 36, heretofore described.
- Thence we run
- S. $89^{\circ} 56' W.$, on a true line bet. secs 25 and 36.
- Over mountainous land; through dense undergrowth; ascend.
- 22.50 Top of ridge, 150 ft. above sec. cor., bears N. $15^{\circ} E.$ and S. $15^{\circ} W.$; descend.
- 40.09 Bottom of hollow, 200 ft. below ridge, course N.E.
- Set a sandstone, 24x8x6 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
- Ascend.
- 45.00 Top of ridge, 125 ft. above hollow, bears N.E. and S.W.; descend.
- 75.00 Bottom of hollow, 150 ft. below ridge, course N.E.; ascend.
- 80.18 The cor. of secs. 25, 26, 35, and 36,
- Land, mountainous.

Subdivision of T. 11 S. R. 20 E. -Continued

Chains	<p>Soil, clay loam and gravelly; 2nd and 3rd rate.</p> <p>No timber.</p> <p>Undergrowth, sage brush and shadscales.</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense undergrowth, 80.18 chs.</p>
	<p>N. 0° 01' W., bet. secs. 25 and 26.</p> <p>Over mountainous land; through dense undergrowth; ascend.</p>
33.00	Top of ridge, 100 ft. above sec. cor., bears N. 60° E. and S. 60° W.; descend.
40.00	Set a sandstone, 20x7x4 ins., 16 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
51.00	Bottom of hollow, 150 ft. below ridge, course N. 70° E.; ascend.
80.00	Set a sandstone, 20x12x5 ins., 15 ins. in the ground, for cor. of secs. 23, 24, 25, and 26, marked with 2 notches on S. and 1 notch on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous.
	<p>Soil, gravelly loam and clay loam; 2nd rate.</p> <p>No timber.</p> <p>Undergrowth, sage brush and shadscales.</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense undergrowth, 80. 00 chs.</p>
	<hr/> <p>N. 89° 56' E., on a random line bet. secs. 24 and 25.</p>
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.16	Intersect The Green River Guide Meridian, 19 lks. S. of the cor. of secs. 19, 24, 25, and 30, heretofore described.

Subdivision of T.11 S. R.20 E.-Continued.

- Chains Thence we run
S. $89^{\circ}48'W.$,on a true line bet.secs.24 and 25.
Over level canon bottom;through dense undergrowth.
- 20.00 Leave bottom of Willow Creek Canon,bears N. $20^{\circ}W.$ and S. $20^{\circ}E.$;ascend.
- 40.08 Set a limestone,20x7x4 ins.,15 ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ on N.face;and raise a mound of stone,2 ft.base, $1\frac{1}{2}$ ft.high,N.of cor.Pits impracticable.
- 42.00 Top of ridge,175 ft.above canon,bears N. $60^{\circ}E.$ and S. $60^{\circ}W.$;descend.
- 70.00 Bottom of hollow,100 ft.below ridge,course N. $60^{\circ}E.$;ascend.
- 80.16 The cor.of secs.23,24,25, and 26.
Land,mountainous and level.
Soil,clay and gravelly loam;2nd rate.
No timber.
Undergrowth,sage brush ,grease wood, and shadscales.
Good grass for grazing.
Mountainous land,or land covered with dense undergrowth,80.16 chs.
-
- N. $0^{\circ}01'W.$,bet.secs.23 and 24.
Over mountainous land;through dense undergrowth;ascend.
- 18.50 Top of ridge,150 ft.above sec.cor.,bears N.E. and S.W.
Descend.
- 30.00 Bottom of hollow,125 ft.below ridge,course N.E.;ascend.
- 40.00 Set a sandstone,20x10x4 ins.,15 ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ on W. face;and raise a mound of stone,2 ft.base, $1\frac{1}{2}$ ft.high,W.of cor.Pits impracticable.
- 50.00 Top of ridge,200 ft.above hollow,bears N.E. and S.W.;descend.

Subdivision of T.11.S., R.20.E.-Continued.

Chains	
71.00	Bottom of hollow, 150 ft. below ridge, course N.70° E.; ascend.
80.00	Set a sandstone, 36x12x5 ins., 27 ins. in the ground, for cor. of secs. 13, 14, 23, and 24, marked with 3 notches on S. and 1 notch on E. edges; and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, clay and gravelly loam; 2nd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs. October 26, 1901: At the noon hour the sky is overcast and solar observations are impossible.

	N. 89° 48' E., on a random line bet. secs. 13 and 24.
40.00	Set temp. $\frac{1}{2}$ sec. cor.
80.00	Intersect the Green River Guide Meridian, 9 lks. N., of the cor. of secs. 13, 18, 19, and 24, heretofore described. thence we run S. 89° 52' W., on a true line bet. secs. 13 and 24. Over mountainous land; through dense undergrowth; descend.
6.00	Foot of descent, 100 ft. below sec. cor., bears N. 35° W. and S. 35° E.; enter bottom of Willow Creek Canon.
13.25	Old wagon road, bears N. 35° W. and S. 35° E.
17.50	Willow Creek bed (dry), 25 lks wide, course N. 35° W.
30.00	Leave canon, bears N. 35° W. and S. 35° E.; ascend.
33.25	Top of spur, 50 ft. above canon, bears N. 70° E. and S. 70° W.; descend.
40.00	Bottom of hollow, 50 ft. below ridge, course N. 70° E. Set a sandstone, 24x8x4 ins., 18 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of

Subdivision of T. 11 S. R. 20 E. -Continued

Chains	stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
	Ascend.
80.00	The cor. of secs. 13, 14, 23, and 24. Land, mountainous and level. Soil, clay loam and gravelly; 2nd and 3rd rate. No timber. Undergrowth, sage brush, shadscales, and greasewood. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	N. 0° 01' W., bet. secs. 13 and 14. Over mountainous land; through dense undergrowth; ascend.
27.50	Top of ridge, 150 ft. above sec. cor., bears N.E. and S.W.; descend.
40.00	Bottom of hollow, 175 ft. below ridge, course N.E. Set a sandstone, 30x10x4 ins., 22 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Ascend.
65.50	Top of ridge, 150 ft. above hollow, bears N. 30° E. and S. 30° W.; descend.
80.00	Set a sandstone, 20x12x4 ins., 15 ins. in the ground, for cor. of secs. 11, 12, 13, and 14, marked with 4 notches on S. and 1 notch on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, clay loam and gravelly; 2nd and 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense under-

Subdivision of T.11 S., R.20 E.-Continued.

Chains	growth, 80.00 chs.
	N. $89^{\circ}52' E.$, on a random line bet. secs. 12 and 13.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.08	Intersect the Green River Guide Meridian, 9^{\prime} lks. N. of the cor. of secs. 7, 12, 13, and 18, heretofore described. thence we run $S.89^{\circ}56' W.$, on a true line bet. secs. 12 and 13. Over rolling mesa; through dense undergrowth.
13.00	Leave mesa, bears N.W. and S.E.; descend.
40.04	Set a sandstone, 20x10x5 ins., 15 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
41.00	Foot of descent, 150 ft. below mesa, bears N.W. and S.E. Enter bottom of Willow Creek Canon.
54.00	Old wagon road, bears N.W. and S.E.:
60.25	Willow Creek bed (dry), 20 lks. wide, course N.W.
61.00	Leave Willow Creek Canon, bears N.W. and S.E.; ascend.
80.08	The cor. of secs. 11, 12, 13, and 14. Land, mountainous and level. Soil, clay loam and gravelly; 2nd and 3rd rate. No timber. Undergrowth, sage brush, shadscales, and greasewood. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.08 chs.
	N. $0^{\circ}01' W.$, bet. secs. 11 and 12. Over mountainous land; through scattering undergrowth. Descend.
20.00	Foot of descent, 100 ft. below sec. cor., bears N.W. and S.E.; enter bottom of Willow Creek Canon.
36.75	Willow Creek bed (dry), 26 lks. wide, course N. $37^{\circ} W.$.

Subdivision of T.11 S., R.20 E.-Continued.

Chains	
40.00	Set a sandstone, 18x12x4 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
40.50	Old wagon road, bears N. 35° W. and S. 35° E.
56.00	Leave canon bottom, bears N. 35° W. and S. 35° E.; ascend.
66.00	Top of ridge, 150 ft. above canon, bears E. and W.; descend.
76.00	Bottom of hollow, 100 ft. below ridge, course S. 20° W.; ascend.
80.00	Set a sandstone, 24x10x4 ins., 18 ins. in the ground, for cor.of secs.1,2,11, and 12, marked with 5 notches on S. and 1 notch on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
	Land, mountainous and level.
	Soil, clay loam and gravelly ; 2nd and 3rd rate.
	No timber.
	Undergrowth, sage brush and shadscales and greasewood.
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	<hr/>
	N. $89^{\circ} 56'$ E., on a random line betsecs.1 and 12.
40.00	Set temp. $\frac{1}{4}$ sec.cor.
80.20	Intersect the Green River Guide Meridian, 7 lks. N.of the cor.of secs.1,6,7, and 12, heretofore described.
	Thence we run
	S. $89^{\circ} 59'$ W., on a true line betsecs 1 and 12.
	Over rolling mesa; through dense undergrowth.
39.50	Trail, bears N. 30° W. and S. 30° E.
40.10	Set a sandstone, 20x5x4 ins., 15 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable.

Subdivision of T.11 S., R.20 E.-Continued.

Chains	able.
64.00	Leave mesa,bears N.30° W. and S.30° E.;descend.
65.00	Leave dense undergrowth and enter scattering undergrowth,bears N.30° W. and S.30° E..
78.00	Bottom of hollow,150 ft.below mesa,course S.20° W. ;ascend.
-80.20	The cor.of secs.1,2,11, and 12, Land,mountainous and rolling mesa. Soil,sandy and clay loam;2nd rate. No timber. Undergrowth,sage brush and shadscales. Good grass for grazing. Mountainous land,or land covered with dense undergrowth,80.20 chs.
<hr/>	
	N.0°01'W.,on a true line betsecs.1 and 2.
	Note: We run this line on a true line because it closes on a standard parallel.
	Over mountainous land;through scattering undergrowth. Ascend.
15.00	Top of ridge,100 ft.above sec.cor.,bears E.and W.;descend.
30.00	Bottom of hollow,150 ft.below ridge,course W.;ascend.
36.00	Top of ridge,100 ft.above hollow,bears E.and W.;descend.
40.00	Set a sandstone,20x10x5 ins.,15 ins.in the ground,for $\frac{1}{2}$ sec.cor.,marked $\frac{1}{2}$ on W.face;and raise a mound of stone,2 ft.base, $1\frac{1}{2}$ ft.high,W.of cor.Pits impracticable.
66.00	Bottom of hollow,110 ft.below ridge,course W.;ascend.
69.50	Top of ascent,100 ft.above hollow,bears E.and W.;thence over rolling mesa.Enter dense undergrowth,bears E.and W.
74.50	Trail,bears E.and W.
79.70	Intersect the Second Standard Parallel South,19.75 chs. S.89°57'W.of the Standard $\frac{1}{2}$ sec.cor.,on S.bdy.sec.35,

Subdivision of T.11 S. R.20 E.-Continued.

Chains

heretofore described.

Set a sandstone, 30x9x8 ins., 22 ins. in the ground, for closing cor. of secs. 1 and 2, marked C.C. on S., with 1 groove on E. and 5 grooves on W. faces; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, S. of cor. Pits impracticable.

Land, mountainous and rolling mesa.

Soil, clay loam and gravelly; 2nd and 3rd rate.

No timber.

Undergrowth, sage brush and shadscales.

Good grass for grazing.

Mountainous land, or land covered with dense undergrowth, 79.70 chs.

October 26, 1901.

October 28, 1901: At 8 h 0 m a.m.l.m.t., we set off 39° 49' N., on the lat. arc; 12° 59' S., on the decl. arc; and determine a true meridian with the solar, at the cor. of secs. 2, 3, 34, and 35, on S. bdy. of Tp., heretofore described.

Thence we run

N. 0° 01' W., bet. secs. 34 and 35.

Over mountainous land; through dense undergrowth; descend.

8.00 Bottom of hollow, 40 ft. below sec. cor., course N. 60° W.; ascend.

10.50 Top of ridge, 40 ft. above hollow, bears N. 70° W. and S. 70° E.; descend.

16.50 Bottom of hollow, 50 ft. below ridge, course N. 85° W.; ascend.

25.00 Top of ridge, 300 ft. above hollow, bears N. 35° W. and S. 35° E.; descend.

40.00 Set a sandstone, 24x10x4 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

Subdivision of T. 11 S., R. 20 E.-Continued

Chains

- 48.15 Bottom of hollow, 40 ft. below ridge, course N.E.; ascend.
- 63.90 Top of ridge, 50 ft. above hollow, bears N.E. and S.W.; descend.
- 71.05 Bottom of hollow, 50 ft. below ridge, course N.E.; ascend.
- 73.50 Top of ridge, 50 ft. above hollow, bears N. 50° E. and S. 50° W.; descend.
- 80.00 Set a sandstone, 20x12x6 ins., 15 ins. in the ground, for cor. of secs. 26, 27, 34, and 35, marked with 1 notch on S. and 2 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
- Land, mountainous.
- Soil, clay loam and gravelly; 2nd and 3rd rate.
- No timber.
- Undergrowth, sage brush and shadscales.
- Good grass for grazing.
- Mountainous land, or land covered with dense undergrowth, 80.00 chs.

East, on a random line bet. secs. 26 and 35.

- 40.00 Set temp. \pm sec. cor.
- 80.08 Intersect N. and S. line, at the cor. of secs. 25, 26, 35, and 36.
- Thence we run
- West, on a true line bet. secs. 26 and 35.
- Over mountainous land; through scattering undergrowth.
- Ascend.
- 33.00 Top of ridge, 150 ft. above sec. cor., bears N. and S.; descend.
- 57.00 Bottom of hollow, 200 ft. belcw ridge, course N. 20° E.; ascend.
- 40.04 Set a sandstone, 28x8x4 ins., 21 ins. in the ground, for

Subdivision of T 11 S., R 20 E -Continued.

Chains $\frac{1}{4}$ sec.cor., marked, $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.

40.60 Top of ridge, 100 ft. above hollow, bears N. 25° E. and S. 25° W.; descend.

45.00 Bottom of hollow, 100 ft. below ridge, course N. 35° E.; ascend.

48.50 Top of ridge, 225 ft. above hollow, bears N. and S.; descend.

50.00 Bottom of hollow, 100 ft. below ridge, course N.; ascend.

66.00 Top of ridge, 100 ft. above hollow, bears N. 10° E. and S. 10° W.; descend.

71.50 Bottom of hollow, 75 ft. below ridge, course N. 10° E.; ascend.

80.08 The cor. of secs. 26, 27, 34, and 35.
Land, mountainous.
Soil, clay loam, gravelly, and rocky; 2nd 3rd and 4th rate.
No timber.
Undergrowth, sage brush and shadscales.
Good grass for grazing.
Mountainous land, 80.08 chs.

N. $0^{\circ}01'W.$, bet. secs. 26 and 27.

Over mountainous land; through scattering undergrowth; descend gradually along west side of hollow.

40.00 Set a sandstone, 22x10x7 ins., 16 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

70.00 Bottom of hollow, 50 ft. below $\frac{1}{4}$ sec.cor., course N.W.; ascend.

75.50 Top of ridge, 150 ft. above hollow, bears N. 10° E. and S. 40° E.; descend.

80.00 Set a sandstone, 24x8x6 ins., 18 ins. in the ground, for

Subdivision of T 11 S . R 20 E -Continued

- Chains cor.of secs.22,23,26, and 27,marked with 2 notches on S.and 2 notches on E.edges;and raise a mound of stone, 2 ft.base, $1\frac{1}{2}$ ft.high,W.of cor.Pits impracticable.
- Land,mountainous.
- Soil,gravelly and rocky;3rd and 4th rate.
- No timber.
- Undergrowth,sage brush and shadscales..
- Good grass for grazing.
- Mountainous land,80.00 chs.
-
- East, on a random line betsecs.23 and 26.
- 40.00 Set temp. $\frac{1}{4}$ sec.cor.
- 80.10 Intersect N.and S.line,at the cor.of secs.23,24,25, and 26.
- Thence we run
- West, on a true line betsecs .23 and 26..
- Over mountainous land;through dense undergrowth;ascend.
- 34.75 Top of ridge,250 ft.above sec.cor.,bears N. 10° E.and S. 10° W.;descend.
- 36.25 Bottom of hollow,100 ft.below ridge,course N.;ascend.
- 40.05 Set a sandstone,24x12x8ins.,18 ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ on N.face;and raise a mound of stone,2 ft.base, $1\frac{1}{2}$ ft.high,N.of cor.Pits impracticable.
- 43.25 Top of ridge,125 ft.above hollow,bears N.and S.;descend.
- 47.75 Bottom of hollow,125 ft.below ridge,course N.;ascend.
- 50.00 Top of ridge,100 ft.above hollow,bears N.and S.;descend.
- 59.55 Bottom of hollow,200 ft.below ridge,course N.;ascend.
- 78.50 Top of ridge,250 ft.above hollow,bears N. 10° E.and S. 10° W.;descend.
- 80.10 The cor.of secs.22,23,26, and 27..
- Land,mountainous.

Subdivision of T 11 S R 20 E -Continued.

- Chains Soil, gravelly and rocky; 3rd and 4th rate.
 No timber.
 Undergrowth, sage brush and shadscales.
 Good grass for grazing.
 Mountainous land, or land covered with dense undergrowth, 80.10 chs..
-
- N.0°01'W., bet. secs. 22 and 23.
 Over mountainous land; through scattering undergrowth, ascend.
- 28.50 Top of ridge, 50 ft. above sec. cor., bears N.45° W. and S.20° E.; descend.
- 36.00 Head of rocky gulch, 200 ft. below ridge, course N.55° E. Ascend.
- 40.00 Point for cor. falls on stationary boulder, 5x3x2 ft., above ground,
 We cut a cross (X) at the exact cor. point for $\frac{1}{2}$ sec. cor., mark $\frac{1}{2}$ on W. side; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
- 43.60 Top of ridge, 200 ft. above hollow, bears N.40° E. and S. 40° W.; descend.
- 79.40 Bottom of hollow, 300 ft. below ridge, course N.70° E.; ascend.
- 80.00 Set a sandstone, 20x10x6 ins., 15 ins. in the ground, for cor. of secs. 14, 15, 22, and 23, marked with 3 notches on S. and 2 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
- Land, mountainous.
 Soil, gravelly and rocky; 3rd and 4th rate.
 No timber.
 Undergrowth, sage brush.
 Good grass for grazing.
 Mountainous land, 80.00 chs.
- October 28, 1901: At this cor. we set off 13°04'S., on

Subdivision of T. 11 S. R. 20 E. -Continued

Chains	the decl. arc; and at 0 h 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $39^{\circ} 57' N.$
	East, on a random line bet. secs. 14 and 23.
40.00	Set temp. $\frac{1}{2}$ sec. cor.
79.90	Intersect N. and S. line, 20 lks. S. of the cor. of secs. 13, 14, 23, and 24.
	Thence we run $S. 89^{\circ} 51' W.$, on a true line bet. secs. 14 and 23. Over mountainous land; through scattering undergrowth ascend.
27.00	Top of ridge, 300 ft. above sec. cor., bears N.E. and S. W.; descend.
39.95	Set a sandstone, $18 \times 10 \times 4$ ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impractic- able.
41.50	Bottom of hollow, 150 ft. below ridge, course N. $26^{\circ} E.$; ascend.
62.50	Top of ridge, 200 ft. above hollow, bears N.E. and S.W.; descend.
78.50	Bottom of hollow, 200 ft. below ridge, course N. $70^{\circ} E.$; ascend.
— 79.90	The cor. of secs. 14, 15, 22, and 23. Land, mountainous. Soil, clay loam and gravelly; 2nd and 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, 79.90 chs.

N. $0^{\circ} 01' W.$, bet. secs. 14 and 15.

Over mountainous land; through scattering undergrowth;
ascend.

Subdivision of T 11 S R 20 E -Continued

Chains	
18.75	Foot of perpendicular ledge, 50 ft. high, bears N. 30° E. and S. 30° W.
19.60	Top of ridge, 250 ft. above sec. cor., bears N. 30° E. and S. 30° W.; descend.
40.00	Set a sandstone, 24x12x4 ins., 18 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
45.50	Bottom of hollow, 275 ft. below ridge, course N. 60° E.; ascend.
60.30	Top of ridge, 150 ft. above hollow, bears N. 50° E. and S. 50° W.; descend.
65.00	Bottom of hollow, 150 ft. below ridge, course N.E.; ascend.
80.00	Set a sandstone, 22x12x4 ins., 16 ins. in the ground, for cor. of secs. 10, 11, 14, and 15, marked with 4 notches on S. and 2 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, gravelly and rocky; 2nd and 4th rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, 80.00 chs.

	N. 89° 51' E., on a random line bet. secs. 11 and 14.
40.00	Set temp. $\frac{1}{2}$ sec. cor.
60.00	Intersect N. and S. line, 17 lks. S. of the cor. of secs. 11, 12, 13, and 14. Thence we run S. 89° 44' W., on a true line bet. secs. 11 and 14. Over mountainous land; through scattering undergrowth; ascend.
10.00	Top of ridge, 100 ft. above sec. cor., bears N. and S.;

Subdivision of T 11 S R 20 E -Continued.

Chains	descend.
16.40	Bottom of hollow, 125 ft. below ridge, course N.10°W.; ascend.
28.00	Top of ridge, 50 ft. above hollow, bears N.10°W. and S.10°E.; descend.
32.55	Bottom of hollow, 50 ft. below ridge, course N.10°W.; ascend.
40.00	Set a sandstone, 24x10x4 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
52.70	Top of ridge, 50 ft. above hollow, bears N.30°E. and S.30°W.; descend.
58.00	Bottom of hollow, 75 ft. below ridge, course N.35°E.; ascend.
64.00	Top of ridge, 75 ft. above hollow, bears N.35°E. and S.35°W.; descend.
72.20	Bottom of hollow, 75 ft. below ridge, course N.45°E.; ascend.
80.00	The cor.of secs.10,11,14, and 15. Land, mountainous. Soil, gravelly; 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, \$0.00 chs.

N.0°01'W., bet. secs.10 and 11.

Over mountainous land; through scattering undergrowth; ascend.

7.25	Top of ridge, 60 ft. above sec.cor., bears N.E. and S.W.; descend.
40.00	Set a sandstone, 16x8x6 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

Subdivision of T. 11 S. R. 20 E. -Continued

Chains	able.
48.00	Bottom of hollow, 160 ft. below ridge, course N. 60° E.; ascend.
63.50	Top of ridge, 125 ft. above hollow, bears N. 75° E. and S. 75° W.; descend.
80.00	Set a sandstone, 36x18x4 ins., 27 ins. in the ground, for cor. of secs. 2, 3, 10, and 11, marked with 5 notches on S. and 2 notches on E. edges; and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, white clay loam and gravelly; 2nd and 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, 80.00 chs.

	N. 89° 44' E., on a random line bet. secs. 2 and 11.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.20	Intersect N. and S. line, 13 lks. N. of the cor. of secs. 1, 2, 11, and 12. Thence we run S. 89° 50' W., on a true line bet. secs. 2 and 11. Over mountainous land; through dense undergrowth; ascend.
25.00	Top of ridge, 200 ft. above sec. cor., bears N. and S.; descend.
39.50	Foot of descent, 300 ft. below ridge, bears N. W. and S. E.; enter bottom of Willow Creek Canon.
40.10	Set a sandstone, 24x8x4 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor. Pits impracticable.
46.70	Old road, bears N. W. and S. E.
52.00	Leave sage brush and enter dense willows, bears N. W. and S. E.

Subdivision of T.11 S., R.20 E.-Continued.

Chains	
53.90	Willow Creek Bed(dry), 20 lks.wide, course N.W.
56.20	Leave willows and enter greasewood, bears N.and S.
62.20	Trail, bears N.and S.
72.50	Begin ascent of mountain, bears N.and S.; leave grease-wood and enter sage and shadscales, bears N.and S.
80.20	The cor.of secs.2,3,10, and 11. Land, mountainous and level. Soil, clay loam and gravelly; 2nd and 3rd rate. No timber. Undergrowth, sage brush, shadscales, willows, and grease-wood. Good grass for grazing. Mountainous land, or land covered with dense under-growth, 80.20 chs.

October 28, 1901.

October 29, 1901: At 8 h 0 m a.m., 1 m.t., we set off
39° 53' N., on the lat.arc; 13° 19' S., on the decl.arc;
and determine a true meridian with the solar, at the
cor.of secs.2,3,10, and 11.

Thence we run

N.0°01'W., on a true line bet.secs.2 and 3.

For reasons already explained.

Over mountainous land; through dense undergrowth; des-cend.

6.50 Bottom of hollow, 60 ft. below sec.cor., course N.30°E.; ascend.

13.50 Top of spur, 60 ft. above hollow, bears N.E. and S.W.; descend.

17.50 Foot of descent, 100 ft. below spur, bears N.W. and S.E.; enter bottom of Willow Creek Canon.

36.00 Willow Creek Bed(dry), 25 lks.wide, course N.70°W.

40.00 Set a sandstone, 22x14x6 ins., 16 ins.in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of

Subdivision of T 11 S . R 20 E -Continued.

- Chains stone,2 ft.base,1 $\frac{1}{2}$ ft.high,W.of cor.Pits impracticable.
- 40.10 Old wagon road in canon,bears N.80°W.and S.80°E.
- 46.20 Leave canon bottom,bears N.80°W.and S.80°E.;ascend ridge.
- 51.40 Top of ridge,100 ft.above canon,bears N.W.and S.E.;descend.
- 67.00 Bottom of hollow,200 ft.below ridge,course N.E.;ascend.
- 71.30 Top of ridge,125 ft.above hollow,bears E.and W.;descend.
- 79.25 Intersect the 2nd Standard Parallel South 19.35 chs.
S.89°04'W.,of the re-established standard $\frac{1}{4}$ sec.cor.
on S.bdy.sec.34,heretofore described.

Set a quartzite stone,30x8x5 ins.,22 ins.in the ground,
for closing cor.of secs.2 and 3,marked C.C.on S.,
face;with 2 grooves on E.and 4 grooves on W.faces;
and raise a mound of stone,2 ft.base,1 $\frac{1}{2}$ ft.high,S.of
cor.,Pits impracticable..
- Land,mountainous and level.
- Soil,white clay loam ,gravelly, and rocky;2nd and 3rd
and 4th rate.
- No timber.
- Undergrowth,sage brush ,shadscales, and greasewood.
- Good grass for grazing.
- Mountainous land,or land covered with dense under-
growth,79.25 chs.

From the cor.of secs.3,4,33, and 34, on S.bdy.of Tp.,
heretofore described,

We run

N.0°02'W.,betsecs.33 and 34.

Over mountainous land;through scattering sage brush
and shadscales;descend gradually along west side of
hollow..

Subdivision of T.11 S..R.20 E.-Continued.

Chains	
12.00	Bottom of hollow, 30 ft. below sec.cor., course N.45°W.; ascend abruptly.
16.00	Top of ridge, 200 ft. above hollow, bears N.W. and S.E.; descend more gradually.
31.00	Bottom of swale, 100 ft. below ridge, course N.W.; ascend.
40.00	Set a sandstone, 20x10x4 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor.Pits impracticable.
45.00	Top of divide ridge between Hill Creek and Willow Creek Canons, 30 ft. above $\frac{1}{4}$ sec.cor., bears N.35°W. and S. 35°E.; descend gradually.
69.00	Bottom of hollow, 150 ft. below divide ridge, course N.25°E.; ascend ridge..
80.00	Set a sandstone, 20x12x6 ins., 15 ins. in the ground, for cor.of secs. 27, 28, 33, and 34, marked with 1 notch on S. and 3 notches on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor.Pits impracticable. Land, mountainous. Soil, white clay loam and gravelly; 2nd and 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, 80.00 chs.

East, on a random line betsecs. 27 and 34.

40.00 Set temp. $\frac{1}{4}$ sec.cor.

80.20 Intersect N.and S.line, 14 lks.N.of the cor.of secs. 26, 27, 34, and 35.

Thence we run

N.89° 54'W., on a true line betsecs. 27 and 34.

Over mountainous land; through scattering sage brush and shadscales; ascend over rolling mountain.

Subdivision of T 11 S R 20 E -Continued

Chains	
23.00	Top of ridge, 150 ft. above sec.cor., bears N.40°W. and S.40°E.; descend.
40.10	Bottom of hollow, 100 ft. below ridge, course N.10°E. Set a sandstone, 20x10x4 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable. Ascend.
57.00	Top of ridge, 150 ft. above hollow, bears N.20°E. and S.20°W.; descend.
74.50	Bottom of hollow, 150 ft. below ridge, course N.45°E.; ascend.
80.20	The cor.of secs.27,28,33, and 34. Land, mountainous. Soil, white clay loam and gravelly; 2nd land 3rd rate. No timber. Undergrowth, scattering shadscales and sage brush. Good grass for grazing. Mountainous land, 80.20 chs. October 29, 1901: At the noon hour the sky is overcast and solar observations are impossible.
	N.0°02'W., betsecs.27 and 28. Over mountainous land; through scattering undergrowth; Ascend abruptly.
5.50	Top of ridge, 125 ft. above sec.cor., bears N.E. and S.W.; descend.
13.00	Bottom of hollow, 200 ft. below ridge, course N.E.; ascend abruptly.
15.65	Foot of perpendicular ledge, 75 ft. high, bears N.50°E. and S.50°W.:
32.00	Top of ridge, 220 ft. above hollow, bears N.23°E. and S.23°W.; descend.
40.00	Set a sandstone, 24x9x8 ins., 18 ins. in the ground; for

Subdivision of T. 11 S., R. 20 E.-Continued.

Chains	$\frac{1}{4}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
52.50	Bottom of hollow, 175 ft. below ridge, course N. 25° E.; ascend.
71.50	Top of spur, 100 ft. above hollow, bears N.E. and S.W.; descend.
74.00	Bottom of hollow, 100 ft. below ridge, course N.E.; ascend.
80.00	Set a sandstone, 30x10x6 ins., 22 ins. in the ground, for cor.of secs. 21, 22, 27, and 28, marked with 2 notches on S.and 3 notches on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable. Land, mountainous. Soil, clay and gravelly loam; 2nd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, 80 . 00 chs.
40.00	S. $89^{\circ} 54' E.$, on a random line betsecs. 22 and 27. Set temp. $\frac{1}{4}$ sec.cor.
80.20	Intersect N.and S.line, 24 lks.S.of the cor.of secs. 22, 23, 26, and 27. Thence we run S. $89^{\circ} 56' W.$, on a true line betsecs. 22 and 27. Over mountainous land; through scattering undergrowth, descend.
3.00	Bottom of hollow, 125 ft. below sec.cor., course N.; ascend.
10.25	Top of ridge, 150 ft. above hollow, bears N. and S.; descend.
24.00	Bottom of hollow, 200 ft. below ridge, course N.; ascend.
40.10	Set a sandstone, 20x10x4 ins., 15 ins. in the ground, for

Subdivision of T 11 S . R 20 E -Continued

Chains	$\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
53.50	Top of ridge, 100 ft. above hollow, bears N.E. and S.W.; descend.
56.00	Bottom of hollow, 150 ft. below ridge, course N.E.; ascend.
60.50	Top of ridge, 125 ft. above hollow, bears N.30°W. and S.30°E.; descend.
74.80	Bottom of hollow, 150 ft. below ridge, course N.10°W.; ascend.
80.20	The cor.of secs.21 ,22,27, and 28. Land, mountainous. Soil, gravelly and rocky; 3rd and 4th rate. No timber. Undergrowth,sage brush and shadscales. Good grass for grazing. Mountainous land, 80.20 chs.

N.0°02'".,betsecs.21 and 22.

Cover mountainous land; through scattering undergrowth, ascend low ridge.

2.00	Foot of perpendicular ledge, 20 ft. high, bears N.30°E. and S.30°W.
5.00	Top of low ridge, 50 ft. above sec.cor., bears N.30°W. and S.30°E., joins divide about 8.00 chs.N.30°W.; descend gently . Enter dense undergrowth,bears with ridge.
24.30	Bottom of swale, 175 ft. below ridge, course N.70°E.; ascend white clay hill.
28.50	Top of spur, 80 ft. above swale,bears N.80°E. and S.80 ° W.; descend.
38.00	Bottom of hollow, 125 ft. below spur, course N.80°E.; Leave dense undergrowth and enter scattering undergrowth,bears with hollow. Ascend.

Subdivision of T.11 S., R.20 E.-Continued.

Chains	
40.00	Set a sandstone, 20x12x4 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
42.50	Foot of perpendicular ledge, 15 ft. high, bears N.E. and S.W.
44.00	Top of ridge, 70 ft. above hollow, bears N. 60° E. and S. 60° W.; descend.
46.00	Bottom of hollow, 125 ft. below ridge, course N. 40° E.; ascend.
74.00	Top of ridge, 100 ft. above hollow, bears N. 32° E. and S. 60° W.; descend.
80.00	Set a limestone, 16x10x5 ins., 11 ins. in the ground, for cor.of secs. 15, 16, 21, and 22, marked 11 S.on N.E. and 20 E.on S.E.faces; with 3 notches on E. and 3 notches on S.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable. Land, mountainous. Soil, clay loam, sandy and gravelly; 2nd and 3rd rate. No timber. Undergrowth, sage brush, shadscales, and greasewood. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.

	N. $89^{\circ} 56'$ E., on a random line bet.secs. 15 and 22.
40.00	Set temp. $\frac{1}{4}$ sec.cor.
80.22	Intersct N. and S.line, 3 $\frac{1}{2}$ lks.N. of the cor.of secs. 14, 15, 22, and 23. Thence we run \checkmark N. $89^{\circ} 50'$ W..., on a true line bet.secs. 15 and 22. Over mountainous land; through scattering undergrowth, ascend.
40.11	Set a sandstone, 18x6x5 ins., 12 ins. in the ground, for

Subdivision of T.11 S., R.20 E.-Continued.

Chains $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Bits impracticable.

:42.00 Top of ridge, 200 ft. above sec.cor., and 25 ft. above $\frac{1}{2}$ sec.cor., bears N.E. and S.W.; descend.

.59.00 Bottom of hollow, 100 ft. below ridge, course N. 20° E.; ascend.

.76.00 Top of ridge, 125 ft. above hollow, bears N. 40° E. and S. 40° W.; descend.

80.22 The cor.of secs.15,16,21, and 22.
Land, mountainous.
Soil, white clay loam and rocky; 2nd and 4th rate.
No timber.
Undergrowth, sage brush and shadscales.
Good grass for grazing.
Mountainous land, 80.2 chs.
October 29, 1901: At this cor. we set off $39^{\circ}53'N.$, on the lat.arc; $13^{\circ}25'S.$, on the decl.arc; and at 4 h 2 m p. m. l.m.t., determine a true meridian with the solar, and mark a point thereon on a stone, set firmly in the ground, 5.00 chs. N.of our station.

October 29, 1901.

October 30, 1901: At 4 h 45m a.m., l.m.t., we observe Polaris at western elongation, with the No.2 instrument, in accordance with the Manual, and mark a point in the line thus determined by a tack driven in a wooden plug, set firmly in the ground, 5.00 chs. N.of the cor.

At 7 h 30 m a.m., l.m.t., we lay off the azimuth of Polaris $1^{\circ}35'$ to the east, and mark a point in the true meridian thus determined, by cutting a small groove in the stone, already set 5.00 chs. N.of the cor.; this mark falls 0.28 ins. east of the true meridian determined with the solar.

Subdivision of T.11 S., R.20 E. -Continued

- Chains | At 8 h 0 m a.m., l.m.t., we set off $39^{\circ} 54' N.$, on the
lat.arc; $13^{\circ} 38' S.$, on the decl.arc; and determine a
true meridian with the solar, and mark a point there-
of on the stone already set 5.00 chs.N.of the cor.;
this mark falls 0.33 ins.east of the true meridian
established by Polaris observation with the No.2 in-
strument.
The solar apparatus by p.m. and a.m. observations de-
fines positions for true meridians respectively
about $0' 15''$ west and $0' 17''$ east of the true meridian
established by the Polaris observation with the No.
2 instrument; therefore we conclude that the adjust-
ments of the instruments are satisfactory.
The magnetic bearing of the true meridian, at 8 h
30 m a.m., is $16^{\circ} 17.8' W.$, the angle thus determined,
reduced by the table page 100 of the Manual, gives
the mean mag.decl. $16^{\circ} 15' E.$
From the cor.of secs.15,16,21, and 22,
we run
 $N.0^{\circ} 02' W.$, betsecs.15 and 16.
Over mountainous land; through dense undergrowth; des-
cend.
2.65 Bottom of hollow, 30 ft. below sec.cor., course N. $30^{\circ} E.$
Ascend gently.
40.00 Set a sandstone, $16 \times 12 \times 6$ ins., 11 ins.in the ground, for
 $\frac{1}{4}$ sec.cor., marked with $\frac{1}{4}$ on W.face; and raise a mound
of stone, 2 ft.base, $1\frac{1}{2}$ ft.high, W.of cor.Pits imprac-
ticable.
46.50 Top of ridge, 50 ft.above $\frac{1}{4}$ sec.cor., and 200 ft.above
hollow, bears N. $30^{\circ} E.$ and S. $30^{\circ} W.$; descend.
61.00 Bottom of hollow, 150 ft.below ridge, course N. $20^{\circ} E.$;
ascend through scattering undergrowth.
80.00 Set a sandstone, $20 \times 8 \times 7$ ins., 15 ins.in the ground,
for cor.of secs.9,10,15, and 16, marked with 4 notches
on S.and 3 notches on E.edges; and raise a mound of

Subdivision of T.17 S .R 20 E -Continued

- Chains stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
- Land, mountainous.
- Soil, clay loam and rocky; 2nd and 4th rate.
- No timber.
- Undergrowth, sage brush and shadscales.
- Good grass for grazing.
- Mountainous land, or land covered with dense undergrowth, 80.00 chs.
-
- S. $89^{\circ} 50' E.$, on a random line bet. secs. 10 and 15.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 80.30 Intersect N. and S. line, 5 lks. N. of the cor. of secs. 10, 11, 14, and 15.
- Thence we run
- N. $89^{\circ} 48' W.$, on a true line bet. secs. 10 and 15.
- Over mountainous land; through scattering undergrowth, ascend.
- 5.25 Top of ridge, 60 ft. above sec. cor., bears N.E. and S.W.; descend.
- 30.00 Bottom of hollow, 150 ft. below ridge, course N.W.; ascend.
- 40.15 Set a sandstone, 30x6x4 ins., 22 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
- 42.00 Top of spur, 75 ft. above hollow, bears N. and S.; descend.
- 56.90 Bottom of hollow, 150 ft. below spur, course N. $20^{\circ} E.$; ascend.
- 66.00 Top of ridge, 125 ft. above hollow, bears N. $20^{\circ} E.$ and S. $20^{\circ} W.$; descend.
- 73.25 Bottom of hollow, 50 ft. below ridge, course N. $20^{\circ} E.$; ascend.
- 80.30 The cor. of secs. 9, 10, 15, and 16.

Subdivision of T 11 S R 20 E -Continued

Chains	Land, mountainous. Soil, clay loam and gravelly; 2nd and 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, 80-30 chs.
	N.0°02'W., bet. secs. 9 and 10. Over mountainous land; through scattering undergrowth; ascend.
12.50	Top of ridge, 100 ft. above sec. cor., bears N.E. and S.W. Descend.
20.00	Bottom of hollow, 125 ft. below ridge, course N.E.; ascend over rolling mountain.
30.00	Foot of perpendicular ledge, 75 ft. high, bears E. and W.
36.50	Top of ridge, 150 ft. above hollow, bears N.E. and S.W.; descend.
40.00	Set a limestone, 24x6x5 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
52.50	Bottom of hollow, 80 ft. below ridge, course N.E.; thence along side hill.
54.00	Same hollow, course N.W.; thence along side hill.
56.75	Bottom of same hollow, course N.E.; thence along side hill.
62.75	Bottom of same hollow, course N.W.; ascend abruptly.
65.00	Foot of ledge, 40 ft. high, bears E. and W.
65.50	Top of ridge, 150 ft. above hollow, bears E. and W.; descend.
79.50	Bottom of same hollow as crossed at 62.75 chs., 250 ft. below ridge, course N.40°E.; ascend.
80.00	Set a sandstone, 20x6x4 ins., 15 ins. in the ground, for cor. of secs. 3, 4, 9, and, 10, marked with 5 notches on S. and 3 notches on E. edges; and raise a mound of stone,

Subdivision of T 17 S R 20 E -Continued

Chains 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
Land, mountainous.
Soil, gravelly loam and rocky; 3rd and 4th rate.
No timber.
Undergrowth, sage brush and shadseales.
Good grass for grazing.
Mountainous land, 80.00 chs.

S. $89^{\circ} 48' E.$, on a random line bet. secs. 3 and 10.

- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
80.14 Intersect N. and S. line, 14 lks. S. of the cor. of secs. 2, 3, 10, and 11.
Thence we run
N. $89^{\circ} 54' W.$, on a true line bet. secs. 3 and 10.
Over mountainous land; through scattering undergrowth;
descend.
2.18 Bottom of hollow, 40 ft. below sec. cor., course N. $20^{\circ} E.$;
ascend.
25.43 Top of ridge, 150 ft. above hollow, bears N. $15^{\circ} W.$ and
S. $15^{\circ} E.$; descend.
33.75 Bottom of hollow, 150 ft. below ridge, course N. $20^{\circ} W.$;
ascend.
40.07 Set a sandstone, 30x8x5 ins., 22 ins. in the ground, for
sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of
stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impractic-
able.
65.00 Top of ridge, 250 ft. above hollow, bears N. and S.; des-
cend.
79:60 Bottom of hollow, 175 ft. below ridge, course N. $40^{\circ} E.$;
ascend.
80.14 The cor. of secs. 3, 4, 9, and 10.
Land, mountainous.
Soil, clay and gravelly loam and rocky; 2nd and 4th
rate.
No timber.

Subdivision of T. 11 S., R. 20 E. -Continued

	Chains Undergrowth, sage brush and shadscales.
	Good grass for grazing.
	Mountainous land, 80.14 chs.
	For reasons already explained we run N.0°02'W., on a true line bet. secs. 3 and 4.
	Over mountainous land; through scattering undergrowth; ascend.
9.00	Top of ridge, 100 ft. above sec. cor., bears N.80°E. and S.80°W.; descend.
13.50	Bottom of hollow, 50 ft. below ridge, course N.80°E.; ascend.
18.00	Foot of perpendicular ledge, 25 ft. high, bears E. and W.
20.50	Top of ridge, 100 ft. above hollow, bears N.E. and S.W.; descend.
28.80	Bottom of hollow, 300 ft. below ridge, course N.E.; as- cend.
35.90	Top of ridge, 300 ft. above hollow, bears N.55°E. and S. 55°W.; descend.
40.00	Set a yellow sandstone, 40x12x7 ins., 50 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
43.80	Bottom of hollow, 150 ft. below ridge, course E.; ascend.
46.00	Top of ridge, 150 ft. above hollow, bears N.80°E. and S. 80°W.; descend.
55.00	Bottom of gulch, 200 ft. below ridge, course E.; ascend.
62.00	Top of ridge, 200 ft. above gulch, bears E. and W.; des- cend.
75.00	Bottom of rocky gulch, 300 ft. below ridge, course N.35° E.; ascend.
78.10	Intersect the 2nd Standard Parallel South 17.95chs. S.89°4' of the standard $\frac{1}{4}$ sec. cor., on S. bdy. sec. 33, heretofore described.
	Set a sandstone, 18x12x8x ins., 12 ins. in the ground, for

S'bdvision of T 11 S R 20 E.-Continued.

Chains closing cor.of secs.3 and 4,marked C.C.on S.,with 3 grooves on E.and 3 grooves on W.faces;and raise a mound of stone,2 ft.base, $1\frac{1}{2}$ ft.high,S.of cor.Pits impracticable.

Land,mountainous.

Soil,clay loam,gravelly, and rocky;2nd ,3rd and 4th rate.

No timber.

Undergrowth,sage brush and shadscales.

Good grass for grazing.

Mountainous land, 78.10 chs.

October 30,1901:At this cor.we set off $13^{\circ} 45'S.$,on the decl.arc;and at 0 h 3 m p.m.,l.m.t.,observe the sun on the meridian,the resulting lat.is $39^{\circ} 54'N.$

From the cor.of secs.4,5,32, and 33, on S.bdy.of Tp., heretofore described,

we run

N. $0^{\circ} 03'W.$,betsecs.32 and 33.

Over mountainous land;through dense undergrowth; descend.

7.50 Bottom of hollow,50 ft.below sec.cor.,course N. $10^{\circ} W.$. Thence along side hill.

32.50 Bottom of same hollow, course N. $10^{\circ} E.$;ascend gently along west side of hollow.

40.00 Set a sandstone,16x10x4 ins.,11 ins.in the ground, for $\frac{1}{2}$ sec.cor.,marked $\frac{1}{2}$ on W.face;and raise a mound of stone,2 ft.base, $1\frac{1}{2}$ ft.high,W.of cor.Pits impracticable.

Descend gradually along west side of hollow.

64.00 Bottom of same hollow as crossed at 32.50 chs.,course N.W.;ascend.

80.00 Set a sandstone,24x8x8 ins.,18 ins.in the ground,for cor.of secs.28,29,32, and 33,marked with 1 notch on S.and 4 notches on E.edges;and raise a mound of stone,

Subdivision of T.11 S., R.20 E.-Continued.

	Chains	2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable. Land, mountainous. Soil, clay and gravelly loam; 2nd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
		East, on a random line bet. secs. 28 and 33.
40.00		Set temp. $\frac{1}{2}$ sec. cor.
79.80		Intersect N. and S. line, 24 lks. S. of the cor. of secs. 27, 28, 33, and 54. Thence we run S. $89^{\circ} 50' W.$, on a true line bet. secs. 28 and 33. Over mountainous land; through scattering undergrowth; ascend abruptly.
1.67		Foot of perpendicular ledge, 15 ft. high, bears N. $40^{\circ} E.$ and S. $40^{\circ} W.$.
11.00		Top of ridge, 200 ft. above sec. cor., bears N.E. and S.W.; descend gently.
15.00		Head of swale, 25 ft. below ridge, course N.; ascend.
18.10		Top of divide ridge between Hill Creek Canon and Willow Creek Canon, 50 ft. above swale, bears N. $10^{\circ} W.$ and S. $10^{\circ} E.$; descend through dense undergrowth.
36.50		Bottom of hollow, 150 ft. below ridge, course N. $50^{\circ} W.$; ascend.
39.95		Set a sandstone, 16x8x5 ins., 11 ins. in the ground, for sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable. This cor. is 100 ft. above hollow.
43.00		Top of ridge, 125 ft. above hollow, bears N. $35^{\circ} W.$ and S. $35^{\circ} E.$; descend abruptly.
49.50		Bottom of hollow, 250 ft. below ridge, course N. $35^{\circ} W.$;

Subdivision of T 11 S. R.20 E.-Continued.

- Chains ascend.
- 70.00 Top of ridge,200 ft.above hollow,bears N.20°W.and S.20°E.;descend.
- 79.90 The cor.of secs.28,29,32, and .33.
Land,mountainous.
Soil,clay loam and gravelly;2nd and 3rd rate.
No timber.
Undergrowth,sage brush and shadscales.
Good grass for grazing.
Mountainous land,or land covered with dense undergrowth,79.90 chs.
-
- N.0°03'W.,betsecs.28 and 29.
Over mountainous land;through dense undergrowth;ascend..
- 1.50 Top of ridge,20 ft.above sec.cor.,bears E.and N.80°W.
Descend.
- 35.00 Bottom of hollow,150 ft.below ridge,course N.80°W.;ascend.
- 40.00 Top of ridge,50 ft.above hollow,bears E.and W.
Set a limestone,24x10x5 ins.,18 ins.in the ground,for
sec.cor.,marked $\frac{1}{4}$ on W.face;and raise a mound of
stone,2 ft.base,1 $\frac{1}{2}$ ft.high,W.of cor.Pits impracticable.
Descend.
- 61.00 Bottom of hollow,100 ft.below ridge,course N.60°W.;ascend.
- 80.00 Set a sandstone,24x9x5 ins.,18 ins.in the ground,for
cor.of secs.20,21 ,28, and 29,marked with 2 notches 6n
S.and 4 notches on E.edges;and raise a mound of stone,
2 ft.base,1 $\frac{1}{2}$ ft .high,W.of cor.Pits impracticable.
Land,mountainous .
Soil,clay and gravelly loam and rocky;2nd and 4th
rate.
No timber.

Subdivision of T.11 S., R.20 E.-Continued.

Chains	Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	N. 89° 50' E., on a random line bet. secs. 21 and 28.
40.00	Set temp. $\frac{1}{2}$ sec. cor.
80.00	Intersect N. and S. line, 14 lms. N. of the cor. of secs. 21, 22, 27, and 28. Thence we run \swarrow S. 89° 56' W., on a true line bet. secs. 21 and 28. Over mountainous land; through scattering undergrowth; ascend.
5.00	Top of divide ridge, between Fill Creek Canon and Willow Creek Canon, 100 ft. ab. ve sec. cor., bears N. and S.. Enter dense undergrowth, bears with ridge. Descend.
38.80	Bottom of hollow, 250 ft. below ridge, course N.W.; ascend gradually.
40.00	Set a limestone, 24x8x6 in., 18 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, 1. of cor.; its impracticable.
70.00	Top of ridge, 100 ft. above hollow, bears N. 80° W. and S. 80° E.; descend gradually.
80.00	The cor. of secs. 20, 21, 28, and 29. Land, mountainous. Soil, clay loam and rocky; 2nd and 4th rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.

October 30, 1901.

Subdivision of T 11 S. R 20 E. -Continued

- Chains October 31, 1901: At 8 h 0 m a.m., l.m.t., we set off
39° 50' N., on the lat. arc; 13° 58' S., on the decl. arc; and
determine a true meridian with the solar, at the cor.
of secs. 20, 21, 28, and 29.
- Thence we run
N. 0° 03' W., bet. secs. 20 and 21.
- Over mountainous land; through dense undergrowth; ascend.
1.50 Ridge, 20 ft. above cor., bears N. 70° W., and S. 70° E. Descend.
51.50 Bottom of hollow, 50 ft. below ridge, course N. 10° E.; as-
cend.
40.00 Set a sandstone, 18x10x5 ins., 12 ins. in the ground, for
 $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of
stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impractical-
ble.
Soil, clay loam and gravelly; 2nd and 3rd rate.
No timber.
Undergrowth, sage brush and shadscales.
Good grass for grazing.
Mountainous land, or land covered with dense under-
growth, 80.00 chs.
-
- N. 89° 56' E., on a random line bet. secs. 16 and 21.
40.00 Set temp. $\frac{1}{2}$ sec. cor.
80.12 Intersect N. and S. line, 10 lks. N. of the cor. of secs.
15, 16, 21, and 22.
- Thence we run
West, on a true line bet. secs. 16 and 21.
Over mountainous land; through dense undergrowth; des-

Subdivision of T.11 S., R.20 E.-Continued.

Chains	cend .
3.50	Bottom of hollow, 25 ft. below sec.cor., course N.60°E.; ascend abruptly.
12.00	Foot of perpendicular ledge, 15 ft. high, bears N. and S.
13.50	Top of divide ridge, between Willow Creek Canon and Hill Creek Canon, 250 ft. above hollow, bears N. and S.; descend steep mountain.
14.50	Trail, bears N. and S.
32.00	Bottom of hollow, 250 ft. below ridge, course N.20°E.; ascend.
35.50	Top of spur, 50 ft. above hollow, bears N.20°E. and S. 20°W.; descend.
40.06	Set a sandstone, 20x8x6 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
44.00	Bottom of hollow, 100 ft. below spur, course N.; ascend.
57.50	Top of ridge, 50 ft. above hollow, bears N. and S.; descend.
67.00	Bottom of hollow, 100 ft. below ridge, course N.10°E.; ascend.
80.12	The cor.of secs.16,17,20, and 21. Land, mountainous. Soil, clay loam and gravelly; 2nd and 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.12 chs.
	N.0°03'W., bet. secs.16 and 17. Over mountainous land; through dense undergrowth; ascend.
21.50	Top of ridge, 200 ft. above sec.cor., bears N.10°E. and S.10°W.; descend.

Subdivision of T.11 S., R.20 E.-Continued.

Chains	
40.00	Set a sandstone, 18x10x5 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
80.00	Set a sandstone, 18x9x6 ins., 12 ins. in the ground, for cor.of secs. 8, 9, 16, and 17, marked with 4 notches on S.and 4 notches on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
	Land, mountainous.
	Soil, clay loam and gravelly; 2nd and 3rd rate.
	No timber.
	Undergrowth, sage brush.
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth, 80.00 chs.

East, on a random line betsecs. 9 and 16.

- 40.00 Set temp. $\frac{1}{2}$ sec.cor.
- 79.96 Intersect N.and S.line, 10 lks.S.of the cor.of secs. 9, 10, 15, and 16.
- Thence we run
S. $89^{\circ}56'W.$, on a true line betsecs. 9 and 16.
Over mountainous land; through scattering undergrowth;
ascend abruptly.
- 3.15 Foot of perpendicular ledge, 15 ft. high, bears N.E. and S.W.
- 13.00 Top of ridge, 150 ft. above sec.cor.; bears N.E. and S.W.; descend gently.
- 20.00 Bottom of swale, 60 ft. below ridge, course N.E.; ascend.
- 25.00 Top of divide, ridge between Willow Creek Canon and Hill Creek Canon, 100 ft. above swale, bears N. $20^{\circ}E.$ and S. $20^{\circ}W.$; descend abruptly.
- 25.85 Top of perpendicular ledge, 20 ft. high, bears N. $20^{\circ}E.$ and S. $20^{\circ}W.$ Thence over a series of perpendicular

Subdivision of T.11 S., R.20 E.-Continued.

Chains	sandstone, ledges ranging in height from 10 to 50 ft.
32.00	Leave ledges and enter more rolling land, bears N.20°E. and S.20°W.
39.98	Set a limestone, 14x9x8 ins., 9 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
47.50	Bottom of hollow, 350 ft. below ridge, course N.10°W.; ascend.
75.50	Top of ridge, 150 ft. above hollow, bears N. and S.; descend.
79.96	The cor.of secs.8,9,16, and 17. Land, mountainous. Soil, clay loam and rocky; 2nd and 4th rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, 79.96 chs.

N.0°03'W., betsecs.8 and 9.

Over mountainous land; through scattering undergrowth; descend gradually along west side of ridge.

40.00	Set a sandstone, 18x16x6 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
70.00	Foot of descent, 200 ft. below $\frac{1}{2}$ sec.cor., bears N.60°E. and S.60°W.; enter bottom of Hill Creek Canon. Enter dense undergrowth.
72.00	Trail in canon, bears N.60°E. and S.60°W.
78.00	Hill Creek bed(dry), 15 lks. wide, 6 ft. deep, course N.60°E.
80.00	Set a sandstone, 16x9x5 ins., 11 ins. in the ground, for cor.of secs.4,5,8, and 9, marked with 5 notches on S. and 4 notches on E.edges; and raise a mound of stone,

Subdivision of T 11 S. R 20 E -Continued.

- Chains 2 ft.base, $1\frac{1}{2}$ ft.high,W.of cor.Pits impracticable.
Land,mountainous and level canon bottom.
Soil,clay and gravelly loam;2nd rate.
No timber.
Undergrowth,sage brush,shadscales on the mountain
and greasewood and willows in the canon bottom.
Good grass for grazing.
Mountainous land,or land covered with dense under-
growth,80.00 chs.
-
- N. $89^{\circ} 56' E.$,on a random line bet.secs.4 and 9.
40.00 Set temp. $\frac{1}{4}$ sec.cor.
80.00 Intersect N.and S.line,5 lks.N.of the cor.of secs.
3,4,9, and 10.
Thence we run
 $S.89^{\circ} 58' W.$,on a true line bet.secs.4 and 9.
Over mountainous land;through dense undergrowth;as-
cend mountain.
19.00 Top of divide ridge,between Willow Creek Canon and
Hill Creek Canon,250 ft.above sec.cor.,bears N.and S.
Descend to Hill Creek Canon.
40.00 Set a sandstone,18x10x5 ins.,12 ins.in the ground,for
 $\frac{1}{2}$ sec.cor.,marked $\frac{1}{2}$ on N.face;and raise a mound of
stone, 2 ft.base, $1\frac{1}{2}$ ft.high,N.of cor.Pits impractic-
able.
61.00 Foot of descent,275 ft.below sec.cor.,bears N. $60^{\circ} E.$
and S. $60^{\circ} W.$;enter bottom of Hill Creek Canon.
66.00 Trail in canon,bears N. $60^{\circ} E.$ and S. $60^{\circ} W.$
77.00 Hill Creek bed(dry),20 lks.wide,8 ft.deep,course N. 60°
E.
80.00 The cor.of secs.4,5,8, and 9.
Land,mountainous and level canon bottom.
Soil,clay and gravelly loam;2nd rate.
No timber.
Undergrowth,sage brush,shadscales,greasewood and

Subdivision of T. 11 S., R. 20 E. -Continued.

Chains	<p>willows.</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense undergrowth, 80.00 chs.</p> <p>October 31, 1901: At the noon hour the sky is overcast and solar observations are impossible.</p> <hr/> <p>For reasons already explained we run N. 0° 03' W., on a true line bet. secs. 4 and 5.</p> <p>Over level bottom of Hill Creek Canon; through dense greasewood and willow undergrowth.</p>
15.50	<p>Leave canon bottom, bears N.E. and S.W.</p> <p>Leave greasewood and willow and enter scattering sage brush and shadscales, bears N.E. and S.W.; ascend.</p>
17.50	<p>Foot of almost perpendicular ledge, 8 ft. high, bears E. and W.</p>
28.00	<p>Foot of perpendicular sandstone ledge, 80 ft. high, bears N.E. and S.W.</p>
29.50	<p>Top of ridge, 275 ft. above canon, bears N.E. and S.W.; descend abruptly over broken ground.</p>
38.00	<p>Bottom of hollow, 200 ft. below ridge, course N.E.; ascend.</p>
40.00	<p>Set a sandstone, 24x12x4 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked \bar{z} on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, " of cor. Pits impracticable.</p>
48.00	<p>Foot of perpendicular cliff, 15 ft. high, of sandstone, bears E. and W.</p>
60.00	<p>Top of ridge, 200 ft. above hollow, bears N.E. and S.W.; descend.</p>
70.00	<p>Bottom of hollow, 170 ft. below ridge, course N.E.; ascend.</p>
78.40	<p>Intersect the 2nd Standard Parallel South 27.00^{18.50} chs. 1.89° 58' W. from the standard $\frac{1}{4}$ sec. cor. on S. bdy. of sec. 32, heretofore described.</p>

Subdivision of T.11 S. R.20 E.-Continued.

Chains	Set a sandstone, 20x10x5 ins., 15 ins. in the ground, for closing cor. of secs. 4 and 5, marked C.C. on S., with 4 grooves on E. and 2 grooves on W. faces; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, S. of cor. Pits impracticable. Land, mountainous and level. Soil, sandy and clay loam and rocky; 2nd and 4th rate. No timber. Undergrowth, sage brush, shadscales, greasewood and willow. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 78.40 chs.
--------	---

From the cor. of secs. 5, 6, 31, and 32, on S. bdy. of Tp., heretofore described,

we run

N. 0° 03' W., bet. secs. 31 and 32.

Over mountainous land; through scattering undergrowth; ascend.

12.50 Foot. of perpendicular ledge of sandstone, 40 ft. high, bears N. 30° W. and S. 30° E.

14.50 Top of ridge, 125 ft. above sec. cor., bears N. 10° E. and S. 80° E.; descend.

29.00 Bottom of hollow, 100 ft. below ridge, course N. 70° W.; ascend gradually over rolling white-clay hills.

40.00 Set a sandstone, 18x11x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

80.00 Set a sandstone, 18x12x5 ins., 12 ins. in the ground, for cor. of secs. 29, 30, 31, and 32, marked with 1 notch on S. and 5 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
Land, mountainous.

Subdivision of T.11 S., R.20 E.-Continued.

Chains	<p>Soil, white clay loam and gravelly; 2nd and 3rd rate.</p> <p>No timber.</p> <p>Undergrowth, sage brush and shadscales.</p> <p>Good grass for grazing.</p> <p>Mountainous land, 80.00 chs.</p> <hr/>
	<p>East, on a random line bet. secs. 29 and 32.</p>
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.02	Intersect W. and S. line, at the cor. of secs. 28, 29, 32, and 33. Thence we run West, on a true line bet. secs. 29 and 32.
	Over mountainous land; through dense undergrowth; descend.
22.50	Bottom of hollow, 150 ft. below sec. cor., course N. 20° W.; ascend.
40.01	Set a limestone, 18x12x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
45.00	Top of ridge, 250 ft. above hollow, bears N. and S.; descend gradually.
80.02	The cor. of secs. 29, 30, 31, and 32. Land, mountainous. Soil, clay loam and gravelly; 2nd and 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.02 chs.
	<hr/>
	<p>West, on a random line bet. secs. 30 and 31.</p>
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.08	Intersect W. bdy. of Tp., at the cor. of secs. 25, 30, 31,

Subdivision of T 11 S . R 20 E -Continued

Chains	and 36, heretofore described. Thence we run East, on a true line bet. secs. 30 and 31. Over mountainous land; through scattering undergrowth; ascend.
28.75	Top of ridge, 150 ft. above sec.cor., bears N.E. and S.W. Descend over rolling white clay hills.
40.08	Set a limestone, 18x9x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impractic- able..
55.00	Bottom of hollow, 200 ft. below ridge, course N. 20° E.; ascend gradually.
80.08	The cor. of secs. 29, 30, 31, and 30. Land, mountainous. Soil, clay loam; 2nd rate.. No timber. Undergrowth, sage brush and shadscales.. Good grass for grazing. Mountainous land, 80.08 chs.
<hr/>	
35.00	N. $0^{\circ}03'$ W., bet. secs. 29 and 30. Over mountainous land; through dense undergrowth; des- cend gradually along east side of hollow.
40.00	Bottom of hollow, 100 ft. below sec.cor., course N. 20° E.; Ascend gently along west side of hollow.
80.00	Set a sandstone, 20x10x8 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impractic- able.
Set a sandstone, 18x10x8 ins., 12 ins. in the ground, for cor. of secs. 19, 20, 29, and 30, marked with 2 notches on S. and 5 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.	
	Land, mountainous.

Subdivision of T.11 S., R.20 E.-Continued.

Chains	<p>Soil, white clay loam and gravelly; 2nd and 3rd rate.</p> <p>No timber.</p> <p>Undergrowth, sage brush and shadscales.</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense undergrowth, 80.00 chs.</p>
--------	--

October 31, 1901.

- NOV. 1, 1901: At 8 h 0 m a.m., l.m.t., we set off $39^{\circ} 50' N.$, on the lat. arc; $14^{\circ} 17' S.$, on the decl. arc; and determine a true meridian with the solar at the cor. of secs. 19, 20, 29, and 30.
- Thence we run
- East, on a random line bet. secs. 20 and 29.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 79.82 Intersect N. and S. line, 5 lks. S. of the cor. of secs. 20, 21, 28, and 29.
- Thence we run
- S. $89^{\circ} 58' W.$, on a true line bet. secs. 20 and 29.
- Over mountainous land; through dense undergrowth; descend.
- 39.91 Set a sandstone, 18x12x5 ins., 12 ins., in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
- 46.50 Bottom of hollow, 250 ft. below sec. cor., and 25 ft. below $\frac{1}{2}$ sec. cor., course N.W.; ascend.
- 62.00 Top of ridge, 60 ft. above hollow, bears N. and S.; descend.
- 73.00 Bottom of hollow, 50 ft. below ridge, course N. 20° E.; ascend.
- 79.82 The cor. of secs. 19, 20, 29, and 30.
- Land, mountainous.
- Soil, gravelly and white clay loam; 2nd rate.
- No timber.

Subdivision of T.11 S., R.20 E.-Continued.

Chains	Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.82 chs.
	West, on a random line bet. secs. 19 and 30.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.20	Intersect W. bdy. of Tp., 13 lks. S. of the cor. of secs. 19, 24, 25, and 30, heretofore described. Thence we run S. $89^{\circ} 54' E.$, on a true line bet. secs. 19 and 30. Over mountainous land; through scattering undergrowth; ascend.
18.25	Top of ridge, 200 ft. above sec. cor., bears N. $10^{\circ} W.$ and S. $10^{\circ} E.$; descend.
26.20	Bottom of hollow, 200 ft. below ridge, course N. $10^{\circ} E.$; ascend.
38.00	Top of ridge, 200 ft. above hollow, bears N. $10^{\circ} E.$ and S. $10^{\circ} W.$; descend.
40.20	Set a limestone, 16x10x4 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
45.00	Bottom of hollow, 150 ft. below ridge, course N.; ascend.
53.00	Top of ridge, 250 ft. above hollow, bears N. $15^{\circ} E.$ and S. $15^{\circ} W.$; descend abruptly.
80.20	The cor. of secs. 19, 20, 29, and 30. Land, mountainous. Soil, clay loam and gravelly; 2nd and 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, 80.20 chs.

Subdivision of T.11 S., R.20 E.-Continued.

	Chains	N.0°03'W., bet. secs. 19 and 20. Over mountainous land; through scattering undergrowth; descend gradually.
35.00		Bottom of hollow, 150 ft. below sec.cor., course N.20° W.; ascend gently.
37.50		Top of spur, 50 ft. above hollow, bears E. and W.; descend.
40.00		Set a sandstone, 16x8x8 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
51.00		Bottom of same hollow as crossed at 35.00 chs., 75 ft. below spur, course N.10°E.; ascend gently.
80.00		Set a sandstone, 18x10x5 ins., 12 ins. in the ground, for cor. of secs. 17, 18, 19, and 20, marked with 3 notches on S. and 5 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
		Land, mountainous.
		Soil, clay and gravelly loam; 2nd rate.
		No timber.
		Undergrowth, sage brush and shadscales.
		Good grass for grazing.
		Mountainous land, 80.00 chs.
		<hr/>
		N.89° 58' E., on a random line bet. secs. 17 and 20.
40.00		Set temp. $\frac{1}{4}$ sec.cor.
80.00		Intersect N. and S. line, 5 lks. N. of the cor. of secs. 16, 17, 20, and 21.
		Thence we run
		West, on a true line bet. secs. 17 and 20.
		Over mountainous land; through scattering undergrowth;
		Ascend gradually over rolling mountainous country.
8.00		Top of long ridge, 50 ft. above sec.cor., bears N.20° E. and S.; descend gradually.

Subdivision of T. 11 S., R. 20 E.-Continued.

Chains	
40.00	Set a sandstone, 24x14x4 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
71.75	Bottom of hollow, 350 ft. below ridge, course N.; ascend.
80.00	The cor. of secs. 17, 18, 19, and 20. Land, mountainous. Soil, clay loam and gravelly; 2nd and 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, 80.00 chs.
	N. $89^{\circ} 54' W.$, on a random line bet. secs. 18 and 19.
40.00	Set temp. $\frac{1}{4}$ sec.cor.
80.30	Intersect W.bdy. of Tp., 14. lks. S. of the cor. of secs. 13, 18, 19, and 24. Thence we run S. $89^{\circ} 48' E.$, on a true line bet. secs. 18 and 19. Over level bottom of Hill Creek Canon; through dense undergrowth.
15.50	Hill Creek bed(dry) 15 lks. wide, 6 ft. deep, course N.E.
22.25	Trail in canon, bears N.E. and S.W.
22.50	Leave canon bottom, bears N.E. and S.W.; ascend abruptly.
30.00	Top of ridge, 200 ft. above canon, bears N.E. and S.W.; descend.
40.00	Bottom of hollow, 75 ft. below ridge, course N. $40^{\circ} E.$; ascend.
40.30	Set a limestone, 18x9x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.

Subdivision of T.11 S., R.20 E.-Continued.

Chains	
60.00	Top of ridge, 250 ft. above hollow, bears N.E. and S.W.; descend.
80.30	The cor. of secs. 17, 18, 19, and 20. Land, mountainous and level canon bottom. Soil, white clay loam and gravelly; 2nd and 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense under-growth, 80.30 chs.
	N.0°03'W., bet. secs. 17 and 18.
9.00	Over mountainous land; through scattering undergrowth; descend.
40.00	Bottom of hollow, 60 ft. below sec. cor., course N.30°E.; ascend.
40.00	Top of ridge, 150 ft. above hollow, bears N.20°E. and S. 20°W. Set a sandstone, 18x10x5 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Descend into Hill Creek Canon.
75.00	Foot of descent, 275 ft. below ridge, bears N.30°E. and S.30°W. Enter bottom of Hill Creek Canon. Enter dense undergrowth.
75.25	Trail in canon, bears N.30°E. and S.30°W.
80.00	Set a sandstone, 18x8x4 ins., 12 ins. in the ground, for cor. of secs. 7, 8, 17, and 18, marked with 4 notches on S. and 5 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous and level. Soil, clay loam and gravelly; 2nd and 3rd rate. No timber.

Subdivision of T 11 S., R. 20 E.-Continued.

- Chains Undergrowth, sage brush and shadscales on mountains and greasewood in canon bottom.
Good grass for grazing.
Mountainous land, or land covered with dense undergrowth, 80.00 chs.
-
- East, on a random line bet. secs. 8 and 17.
40.00 Set temp. $\frac{1}{2}$ sec. cor.
79.96 Intersect N. and S. line, 13 lks. N. of the cor. of secs. 8, 9, 16, and 17.
Thence we run
N. $89^{\circ} 54' W.$, on a true line bet. secs. 8 and 17.
Over rolling white clay mountains; through scattering undergrowth; descend gradually.
39.98 Set a sandstone, 18x12x4 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
60.00 Bottom of hollow, 250 ft. below sec. cor., and 100 ft. below $\frac{1}{2}$ sec. cor., course N.; ascend.
70.00 Top of spur, 75 ft. above hollow, bears N. and S.; descend.
77.00 Foot of descent, 125 ft. below ridge, bears N. 30° E. and S. 30° W.; enter bottom of Hill Creek Canon; enter dense undergrowth.
77.25 Trail in canon, bears N. 30° E. and S. 30° W.
79.96 The cor. of secs. 7, 8, 17, and 18.
Land, mountainous and level canon bottom.
Soil, white clay loam and gravelly; 2nd and 3rd rate.
No timber.
Undergrowth, sage brush and shadscales on the mountainous land and greasewood in canon bottom.
Good grass for grazing.
Mountainous land, or land covered with dense undergrowth, 79.96 chs.

Subdivision of T.11 S., R.20 E.-Continued

- Chains N. $89^{\circ}48'W.$,on a random line bet.secs.7 and 18.
- 40.00 Set temp. \pm .sec.cor.
- 80.10 Intersect W.bdy.of Tp., 5 lks.S.of the cor.of secs. 7,12,13, and 18, heretofore described.
- Thence we run
 S. $89^{\circ}46'E.$,on a true line bet.secs.7 and 18.
- Over mountainous land; through scattering undergrowth; descend.
- 16.00 Bottom of hollow, 150 ft. below sec.cor., course S. $70^{\circ}E.$. Ascend.
- 58.00 Top of ridge, 100 ft. above hollow, bears N. $70^{\circ}W.$ and S. $70^{\circ}E.$; descend.
- 40.10 Set a limestone, 15x7x6 ins., 10 ins.in the ground, for $\frac{1}{4}$ sec.cor., marked \pm on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor.Pits impracticable.
- 64.90 Foot of descent, 175 ft. below ridge, bears N. $30^{\circ}E.$ and S. $30^{\circ}W.$; enter bottom of Hill Creek Canon. Enter dense undergrowth.
- 77.00 Hill Creek Bed (dry) 21 lks.wide, 6 ft.deep, course N. $30^{\circ}E.$.
- 80.10 The cor.of secs.7,8,17, and 18.
- Land, mountainous and level canon bottom.
- Soil, clay loam and gravelly; 2nd and 3rd rate.
- No timber.
- Undergrowth, sage brush and shadscales.
- Good grass for grazing.
- Mountainous land, or land covered with dense undergrowth, 80.10 chs.
- November 1, 1901: At the noon hour the sky is overcast and solar observation are impossible.

N. $0^{\circ}03'W.$,bet.secs.7 and 8 .

Over level bottom of Hill Creek Canon; through dense creasewood.

Subdivision of T 11 S R 20 E.-Continued :

- Chains
- 4.00 Hill Creek bed(dry)16 lks.wide, 6 ft.deep, course N.45° E.
 - 26.00 Leave canon bottom,bears N.E. and S.W. Leave dense greasewood and enter scattering sage brush and shadscales.Ascend abruptly over broken ground.
 - 40.00 Set a sandstone,20x12x5 ins.,15 ins.in the ground,for $\frac{1}{2}$ sec.cor.,marked $\frac{1}{2}$ on W.face;and raise a mound of stone,2 ft.base, $1\frac{1}{2}$ ft.high,W.of cor.Pits impracticable.
 - 66.00 Top of ridge,600 ft.above canon,bears N.50°E. and S. 50°W.;descend.
 - 80.00 Set a sandstone,18x8x6 ins.,12 ins.in the ground,for cor.of secs.5,6,7, and 8,marked with 5 notches on S. and 5 notches on E.edges;and raise a mound of stone,2 ft.base, $1\frac{1}{2}$ ft.high,W.of cor.Pits impracticable.
Land,mountainous and level canon bottom.
Soil,white clay loam and rocky;2nd and 4th rate.
No timber.
Undergrowth,sage brush,shadscales, and greasewood.
Good grass for grazing.
Mountainous land,or land covered with dense undergrowth,80.00 chs.
-

S.89° 54'E.,on a random line betsecs.5 and 8.

- 40.00 Set temp. $\frac{1}{2}$ sec.cor.
- 80.16 Intersect N.and S.line,24 lks.S.of the cor.of secs. 4,5,8, and 9.
Thence we run
S.89° 56'W.,on a true line betsecs.5 and 8 .
Over level bottom of Hill Creek Canon;through dense greasewood.
- 10.00 Leave canon,bottom,bears N.E. and S.W. Leave dense greasewood and enter scattering sage brush and shadscales. Ascend mountainous.

Subdivision of T 11 S .R 20 E /-Continued

Chains	
14.50	Foot of perpendicular ledge, 30 ft. high, bears N.80°E. and S.80°W. Thence over a series of ledges.
29.00	Leave ledges, bears N.10°E. and S.10°W.
31.00	Top of ridge, 400 ft. above canon, bears N.E. and S.W.; descend.
34.00	Bottom of swale, 40 ft. below ridge, course N.E.; ascend.
40.08	Set a sandstone, 20x10x5 ins., 15 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
50.25	Top of spur, 40 ft. above swale, bears N.E. and S.W.; descend.
55.10	Bottom of hollow, 60 ft. below spur, course N.E.; ascend.
62.75	Top of ridge, 100 ft. above hollow, bears N.E. and S.W.; descend.
78.50	Bottom of hollow, 50 ft. below ridge, course N.E.; ascend.
80.16	The cor. of secs. 5, 6, 7, and 8. Land, mountainous and level canon bottom. Soil, clay and gravelly loam and rocky; 2nd and 4th rate. No timber. Undergrowth, sage brush, shadscales and greasewood. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 10.16 chs.

N.89°46'W., on a random line bet. secs. 6 and 7.

40.00 Set temp. $\frac{1}{2}$ sec.cor.

79.76 Intersect W.bdy. of Tp., at the cor.of secs. 1, 6, 7, and 12, heretofore described.

Thence we run

S.89°46'E., on a true line bet.secs. 6 and 7.

Over mountainous land; through scattering undergrowth;

Subdivision of T.11 S. R.20 E.-Continued.

Chains	descend.
6.00	Bottom of hollow, 100 ft. below sec.cor., course N.20°E; ascend.
20.00	Top of ridge, 150 ft. above hollow, bears N.E. and S.W.; descend.
39.76	Set a sandstone, 24x5x4 ins., 18 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impractic- able.
41.00	Bottom of hollow, 175 ft. below ridge, course N.E. Ascend.
46.00	Top of ridge, 80 ft. above hollow, bears N.E. and S.W.; descend.
53.00	Bottom of hollow, 100 ft. below ridge, course N.E.; as- cend.
60.00	Top of ridge, 100 ft. above hollow, bears N.E. and S.W.; descend.
70.00	Bottom of hollow, 75 ft. below ridge, course N.E.; ascend.
76.00	Top of ridge, 60 ft. above hollow, bears N.E. and S.W.; descend.
79.76	The cor.of secs.5,6,7, and 8. Land, mountainous. Soil, clay loam and gravelly; 2nd and 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, 79.76 chs.

For reasons already explained ,

we run

N.0°03'W., on a true line bet.secs.5 and 6.

Over mountainous land; through scattering undergrowth;
ascend.

4.00 Top of ridge, 75 ft. above sec.cor., bears N.E. and S.W.;
descend.

10.00 Bottom of hollow, 100 ft. below ridge, course N.E.; as-

Subdivision of T. 11 S., R. 20 E.-Continued.

Chains	cend.
21.25	Top of ridge, 125 ft. above hollow, bears N.E. and S.W.; descend.
28.00	Bottom of hollow, 150 ft. below ridge, course N.E.; ascend.
40.00	Set a sandstone, 18x10x6 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
61.00	Bottom of hollow, 175 ft. below ridge, course N.E.; ascend. <i>overness</i>
78.50	Intersect the 2nd Standard Parallel South, 16° 36' chs. ^{21.30 see creeks & 2d Standard Parallel} N. 89° 56' W., of re-established Standard $\frac{1}{2}$ sec.cor., on south bdy. of sec. 31, heretofore described. Set a sandstone, 18x10x5 ins., 12 ins. in the ground, for closing cor. of secs. 5 and 6, marked C.G. on S., with 5 grooves on E. and 1 groove on W. faces; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, S.of cor. Pits impracticable.
	Land, mountainous.
	Soil, clay loam and gravelly; 2nd and 3rd rate.
	No timber.
	Undergrowth, sage brush and shadscales.
	Good grass for grazing.
	Mountainous land, 78.50 chs.

November 1, 1901.

GENERAL DESCRIPTION.

This township is a desert mountainous country. There is no land in the township that could be cultivated excepting in the bottom of Hill Creek and Willow Creek canons. The soil is mostly white clay loam and can be classed as 2nd and 3rd rate; the remainder of the township is gravelly and rocky; 3rd and 4th rate.

There is no timber in the township.

Subdivision of T 11 S R 20 E.-Concluded.

There is no mineral in the township.

There is no water in the township at this time of year.

There are no settlers in the township.

The township is mainly valuable for winter sheep grazing.

John R. Stewart
John R. Stewart
J. D. Deputy Surveyor.

BLANK

PAGE

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by _____, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of _____ showing the respective capacities in which they acted:

, Chainman.

, Chainman.

, Moundman.

, Moundman.

, Axman.

, Axman.

, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted _____

, United States Deputy Surveyor, in surveying all

those parts or portions of the _____

of the _____

meridian, _____ of _____, which are represented

in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for _____

, Chainman.

, Chainman.

, Moundman.

, Moundman.

, Axman.

, Axman.

, Flagman.

Subscribed and sworn to before me this _____

day of _____, 189 }

SEAL

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, _____, United States Deputy Surveyor, solemnly swear that, in pursuance of a contract received from United States Surveyor General for _____, bearing date of the day of _____, 189_____, I have well, faithfully, and truly, in my proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for _____, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of

_____ of the meridian, in the _____ of _____, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions and the special written instructions of the United States Surveyor General for _____, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will incur the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

[Signature]
United States Deputy Surveyor.

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 189 }



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, February 5th 1903, 189_____
The foregoing field notes of the survey of *The Subdivisions of lines
of Township 11 South Range 20 East of the
Salt Lake Base Meridian, Utah*

executed by *Scott P. Stewart and John R. Stewart*
under his contract No. *242*, dated *April 19 1901*, 189_____, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Edward N. Ruder
United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

BLANK

PAGE

BLANK

PAGE

AR 22 Oct 13

FIELD NOTES

OF THE SURVEY OF THE

WEST BOUNDARY

of

Township No. 11 S., Range No. 19 East,

Of the SALT LAKE BASE AND Meridian,
in the STATE OF UTAH,

AS SURVEYED BY

Scott P. Stewart and John R. Stewart, United States Deputy Surveyors
Under ~~xxx~~ Contract No. 242, dated April 12, 1901, 189.
Survey commenced November 1, 1901, 189.
Survey completed November 2, 1901, 189.

6-151

Bright 5.77-80^v
Closing 2^o 20^v

NAMES AND DUTIES OF ASSISTANTS.

Andy J. Stewart	Chairman
Edwin A. Peay	Chairman
Vesco Call	Chairman
Hugh Conover	Chairman
Clarence S. Jarvis	Moradana
John J. Harding	Moradana
George W. Ekins	Axeman
Harry Burton	Axeman
Harvey R. Booth	Flagman
Gilbert Burr	Flagman

Fa preliminary affidavit see last p. 155 of 20 C
6-151

INDEX DIAGRAM.

Township _____, *Range* _____

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Meanders Page _____

PRELIMINARY OATHS OF ASSISTANTS.

WE, and

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

....., Chainman

....., Chainman

Subscribed and sworn to before me this }
day of, 189 }



WE, and

do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

....., Moundman.

....., Moundman.

Subscribed and sworn to before me this }
day of, 189 }



WE, and

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

....., Axman.

....., Axman.

Subscribed and sworn to before me this }
day of, 189 }



I, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

....., Flagman.

Subscribed and sworn to before me this }
day of, 189 }



West boundary of T.11 S., R.18 E.

Survey commenced November 1, 1901, and executed with a W. and L.E. Gurley light mountain transit, No. 3, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc; which also the least count of the latitude and declination arc; and a W. and L.E. Gurley plain transit, No. 2, of which the horizontal limb is provided with one double vernier, reading to single minutes of arc:

The instruments were examined, tested on the true meridian at Salt Lake City, found correct, and were approved by the surveyor general for Utah, the former on June 6, 1901, and the latter on May 29, 1901.

We examine the adjustments of the instruments, and correct the level and collimation errors, then, to test the solar apparatus, of the No. 3 instrument, by comparing its indications resulting from solar observations made during p.m. and a.m. hours, with a true meridian established by observation on Polaris, we proceed as follows; with the No. 3 instrument.

At the cor. of Tps. 11 and 12 S., Rs. 18 and 19 E., here-tofore described, latitude $39^{\circ}49'N.$, longitude $109^{\circ}52'W.$, we set off $39^{\circ}48'N.$, on the lat. arc; $14^{\circ}24'S.$, on the decl. arc; and determine a true meridian with the solar and mark a point thereof on a stone, firmly set in the ground, 5.00 chs. N. of the cor.

November 1, 1901.

3

November 2, 1901: At 4 h 32 m a.m., l.m.t., we observe Polaris at western elongation, with No. 2 instrument, in accordance with the "Manual", and mark a point in the line thus determined, by a tack driven in a wooden plug, set in the ground, 5.00 chs. N. of our station.

At 7 h 30 m a.m., l.m.t., we lay off the azimuth of Polaris $1^{\circ}35.6'$ to the east, and mark a point in the

True meridian thus determined, by cutting a small groove in the stone, already set 5.00 chs.N. of the cor., this mark falls 0.20 fms.east of the true meridian determined with the solar of the No.3 instrument. At 8 h 0 m.s.m., 1m. t., we set off $39^{\circ}49'N.$, on the lat.arc; $14^{\circ}37'W.$, on the decl.arc; and mark a point in the true meridian determined with the solar, by a cross on the stone, already set 5.00 chs.N. of the cor.; this mark falls 0.22 fms.east of the true meridian established by Polaris observation.

The solar apparatus of No.3 instrument, by p.m. and a.m. observations, defines positions for true meridians respectively about $0^{\circ}15'$ west and $0^{\circ}12'$ east of the true meridian established by Polaris observation with No.2 instrument; therefore we conclude that the adjustments of the instruments are satisfactory.

The magnetic bearing of the true meridian at 8 h 3 m.s.m., is $10^{\circ}17'7''$, the angle thus determined, reduced by the table page 100 of the Manual, gives the mean mag.decl. $10^{\circ}14'8''$.

From the above described cor

we run

North, bet. sec. 31 and 32.

Over continuous land, through scattering undergrowth, descent.

25.00 Bottom of hollow, 350 ft. below fp.cor., course N., grad. 2.65%.

25.00 Top of ridge, east, above hollow, bears N.80°E. and S.80°W.

Set a granite stone, 18x6x5 ins., 12 lbs. in the ground, for 1 sec.cor., marked t on T. face and raise a mound of stone, 2 ft. base, 15 ft. high, t. of cor. fits impracticable.

Descent over broken country sloping to the west.

25.00 Bottom of hollow, 200 ft. below ridge, course E.80°T. 1 sec over broken country sloping to the west.

West boundary of T. 11 S., R. 19 E.-Continued.

Chains	
79.90	Top of ridge, 250 ft. above hollow, bears E. and W. Descend.
80.00	Set a limestone, 36x4x4 ins., 24 ins. in the ground, for cor. of secs. 25, 30, 31 and 36, marked with 5 notches on N. and 1 notch on S. edges; and raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor. Pits impracticable.
	Land, mountainous.
	Soil, white clay and gravelly, 3rd rate.
	No timber,
	Undergrowth, sage and shad scales.
	Very little dry grass.
	Mountainous land, 80.00 chs.
<hr/>	
	North, bet. secs. 25 and 30.
	Over mountainous land, through scattering undergrowth descend.
20.00	Bottom of hollow, 100 ft. below sec. cor., course S. 70° W.; ascend.
35.00	Top of ascent, edge of mesa, 250 ft. above hollow, bears N. 80° E. and S. 80° W. Thence over mesa through dense undergrowth.
40.00	Set a limestone, 18x12x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
52.00	Edge of mesa, bears N. 70° E. and S. 70° W.; descend. along steep mountain side sloping to the west.
80.00	Set a limestone, 16x9x4 ins., 10 ins. in the ground, for cor. of secs. 19, 24, 25 and 30, marked with 2 notches on S. and 4 notches on N. edges; and raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor. Pits impracticable.
	Land, mountainous and level.
	Soil, white clay and gravelly, 3rd rate.
	No timber.
	Undergrowth, sage and shadscales.

West boundary of T. 11 S., R. 19 E. - Continued.

Chains	A very little dry grass.
	Mountainous land or land covered with dense undergrowth, 80.00 chs.
	November 2, 1901: At the noon hour the sky is overcast and solar observations are impossible.
	<hr/>
	North, bet. secs. 19 and 24.
	Over mountainous land through scattering undergrowth along steep mountain side sloping to the west.
40.00	Set a limestone, 14x10x4 ins., 9 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
80.00	Set a sandstone, 18x8x4 ins., 12 ins. in the ground, for cor. of secs. 13,18,19 and 24, marked with 3 notches on S. and 3 notches on N.edges; and raise a mound of stone, 3 ft. base, 2 ft. high, W.of cor. Pits impracticable. Land, mountainous. Soil, white clay and gravelly, 3rd rate. No timber. Undergrowth, sage and shadscales. Very little dry grass. Mountainous land, 80.00 chs.
	<hr/>
	North, bet. secs. 13 and 18.
	Over mountainous land, through scattering undergrowth; descend along west slope of steep mountain side.
40.00	Set a limestone, 15x7x5 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 3 ft. base, 2 ft. high, W.of cor. Pits impracticable.
75.00	Trail in bottom of hollow, 200 ft. below sec. cor. course N.80°W.
80.00	Set a limestone, 16x8x4 ins., 10 ins. in the ground,

West boundary of T. 11 S. R. 19 E. - Continued.

Chains for cor. of secs. 7,12,13 and 18, marked with 4 notches on S. and 2 notches on N.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
Land, mountainous.
Soil white clay loam; 3rd. rate
No timber. Undergrowth sagebrush.
Mountainous land 80.00 chs.

North, bet. secs. 7 and 12.

Over mountainous land through scattering undergrowth; ascend.

5.00 Top of ridge, 50 ft. above sec. cor. bears E. and W.; descend.

25.00 Bottom of hollow, 100 ft. below ridge, course N. 80° W.; ascend.

40.00 Set a limestone, 16x9x5 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.

The east bank of Green River is about 20 chains west from this cor.

42,00 Top of ridge, 200 ft. above hollow, bears E. and W.; descend.

59.00 Bottom of hollow, 100 ft. below ridge, course S. 80° W.; ascend.

80.00 Set a limestone, 17x8x4 ins., 11 ins. in the ground, for cor. of secs. 1,6,7 and 12, marked with 5 notches on S. and 1 notch on N.edges; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.

Note:- This mile runs nearly parallel to Green River, being east from 20 to 30 chains and from 50 to 200 feet above the river.

Land, mountainous.

Soil, white clay and gravelly, 3rd. rate.

No timber.

Undergrowth, sage and shadscales.

Very little grass.

Mountainous land, 80.00 chs.

West boundary of T.11 S. R. 19 E.- Concluded.

	Chains	North, bet. secs. 1 and 6. Over mountainous land through scattering undergrowth; ascend.
29.00		Top of ridge, 400 ft. above sec. cor. bears N.70°W. and S.70°E. Descend abruptly.
38.50		Bottom of hollow 150 ft. below ridge, course N.70°W.; ascend.
40.00		Set a limestone, 20x7x4 ins., 15 ins. in the ground, o for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
58.00		Top of ridge, 200 ft. above hollow bears N.75°W. and S.75°E.; descend abruptly.
77.80		Intersect Second Standard Parallel South 2.20 chs. W.of the Standard $\frac{1}{4}$ sec. cor.on south side of sec. 36, T.10 S., R. 18 E. which is a sandstone, 10x8x6 ins. above grouhd, marked and witnessed as described by the surveyor general. Set a sandstone, 24x11x6 ins., 18 ins. in the ground, for closing corner of Tps. 11 S., Rs. 18 and 19 E., marked C.C.11 S., on S., 19 E.on E., and 18 E.on W. faces; with 6 grooves on S.E. and W.faces; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, S.of cor. Pits impracticable. Land, mountainous. Soil, white clay, gravelly and rocky, 3rd and 4th rate No timber. Undergrowth, sage and shadscales. Very little grass. Mountainous land, 77.80 chs.

November 2, 1901.

Scott P. Stewart
John R. Stewart
U. S. Deputy Surveyors

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Scott P. Stewart and John R. Stewart, United States Deputy Surveyors, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the W. and N. bds. of J. 15 S., R. 20 E.; the W. and N. bds. of J. 15 S., R. 19 E.; the W. and N. bds. of J. 14 S., R. 20 E.; the W. and N. bds. of J. 13 S., R. 20 E.; the W. and N. bds. of J. 13 S., R. 19 E.; the W. and N. bds. of J. 12 S., R. 20 E.; the W. and N. bds. of J. 12 S., R. 19 E.; the W. bdy. J. 11 S., R. 20 E.; the W. bdy. J. 11 S., R. 19 E.; the W. and N. bds. of J. 12 S., R. 20 E.; the W. and N. bds. of J. 12 S., R. 19 E.; the W. bdy. J. 11 S., R. 20 E.; the W. bdy. J. 11 S., R. 19 E.; owing the respective capacities in which they acted:

Andy J. Stewart Edwin A. Peay Chainman.
Vesco Call Hugh Conover Chainman.
Clarence S. Jarvis Moundman.
John J. Harding Moundman.
George W. Elkins Axman.
Harry Burton Axman.
Harvey R. Booth Flagman.
Gilbert Burr Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Scott P. Stewart and John R. Stewart, United States Deputy Surveyor, in surveying all those parts or portions of the W. and N. bds. of J. 15 S., R. 20 E.; the W. and N. bds. of J. 15 S., R. 19 E.; the W. and N. bds. of J. 14 S., R. 20 E.; the W. and N. bds. of J. 14 S., R. 19 E.; the W. and N. bds. of J. 13 S., R. 20 E.; the W. and N. bds. of J. 13 S., R. 19 E.; the W. and N. bds. of J. 12 S., R. 20 E.; the W. and N. bds. of J. 12 S., R. 19 E.; the W. bdy. J. 11 S., R. 20 E.; the W. bdy. J. 11 S., R. 19 E.; of the Salt Lake Base and meridian, State of Utah, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor general for Utah.

Andy J. Stewart Edwin A. Peay Chainman.
Vesco Call Hugh Conover Chainman.
Clarence S. Jarvis Moundman.
John J. Harding Moundman.
George W. Elkins Axman.
Harry Burton Axman.
Harvey R. Booth Flagman.
Gilbert Burr Flagman.

Subscribed and sworn to before me this 20th day of November 1901,



My commission Expires March 17, 1913.

Andrew J. Stewart Jr.
Notary Public

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

We Scott P. Stewart and John R. Stewart, United States Deputy Surveyor, solemnly swear that, in pursuance of a contract received from Edward H. Anderson, United States Surveyor General for Utah, bearing date of 12th day of April 1901, we have well, faithfully, and truly, in our proper persons and in strict conformity with the instructions furnished by the United States Surveyor General for Utah, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the W and N Edges of T.15 S. R. 20 E.; W and N Edges of T.15 S. R. 20 E.; W and N Edges of T.14 S. R. 20 E.; W and N Edges of T.13 S. R. 20 E.; W and N Edges of T.12 S. R. 20 E.; W and N Edges of T.11 S. R. 20 E.; and W of T.11 S. R. 19 East of the Salt Lake Base and meridian, in the State of Utah, which are represented in foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for Utah, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Scott P. Stewart
John R. Stewart
United States Deputy Surveyor

Subscribed by said Scott Stewart and John R. Stewart, and sworn to before me }
this 10th day of June 1902, A.D. }

Edward H. Anderson
U.S. Surveyor General for Utah

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, April 1903, No.

The foregoing field notes of the survey of the West Boundary of
Township 11 South Range 19 East of the Salt Lake
Base Meridian, Utah

executed by Scott P. Stewart and John R. Stewart
under his contract No. 342, dated April 12, 1901, 1891, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Edward H. Anderson
United States Surveyor General

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

BLANK

PAGE

BLANK

PAGE

W.

FIELD NOTES

OF THE SURVEY OF THE

RETRACEMENT

of

2nd Standard Parallel South, through Range 19 East.

Of the SALT LAKE BASE AND Meridian,

in the STATE OF UTAH,

AS SURVEYED BY

Scott P. Stewart and John R. Stewart, United States Deputy Surveyor,^stheir
~~Ex~~ Contract No. 242, dated April 12, 1901., 1897~~Ex~~ commenced November 3, 1901., 1898~~Ex~~ completed November 3, 1901., 1899

Date 5.7.7-10

NAMES AND DUTIES OF ASSISTANTS.

Andy J. Stewart	Chairman
Edwin A. Peay	Chairman
Wesco Call	Chairman
Hugh Conover	Chairman
Clarence S. Jarvis	Manager
John J. Harding	Manager
George W. Elkins	Chairman
Harry Burton	Chairman
Harvey R. Booth	Flagman
Gilbert Burr	Flagman

Supplementary affidavit see book 'B' Pg 155 between Ro 2019 &
G-151

INDEX DIAGRAM.

Township _____, *Range* _____

6	6	4	8	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Meanders Page _____

PRELIMINARY OATHS OF ASSISTANTS.

We, and do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by striking or dropping the mace; that we will report the true distances to all notable objects, and the true lengths of all lines that we may be measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

, Chainman.

, Chainman.

Subscribed and sworn to before me this }
day of , 189 }
V



We, and do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

, Moundman.

, Moundman.

Subscribed and sworn to before me this }
day of , 189 }
V



We, and do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

, Axman.

, Axman.

Subscribed and sworn to before me this }
day of , 189 }
V



I, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

, Flagman.

Subscribed and sworn to before me this }
day of , 189 }
V



Retracement of 2nd. Standard Parallel South through Range 19 E.

- Chains Note: Survey commenced November 3, 1901.
For tests of adjustments of instruments see West bdy. of T. 11 S.R. 19 E. Notwithstanding the connection just made of the west bdy. of T. 11 S.R. 19 E. with the 2nd. Standard Parallel South, indicates that the Tp. boundaries are within the prescribed limits of closing, we conclude to retrace the 2nd. Standard Parallel South through Range 19 E. in order to find the old corners and to properly replace any that may be missing. We proceed as follows:
- November 3, 1901: At 8 h 3 m a.m., l.m.t., I set off $39^{\circ} 54' N.$ on the lat. arc; $14^{\circ} 56' S.$ on the decl. arc; and determine a true meridian with the solar at the closing corner of Tps. 11 S. Rs. 18 and 19 E. Thence we run
- East on 2nd. Standard Parallel South through Range 18 E. along the S. side of Section 36. Ascend mountain.
- 2.20 The Standard $\frac{1}{4}$ sec. cor. on south bdy. of sec. 36, heretofore described.
- 10.00 Top of ascent, edge of mesa, 400 ft. above closing corner, bears N. and S. Thence over rolling mesa.
- 40.00 Leave mesa, bears N. and S.; descend.
- 41.60 The Standard corner of Tps. 10 S. Rs. 18 and 19 E., which is a sandstone, 12x10x7 ins., above ground, marked and witnessed as described by the surveyor general. We rebuild mound $2\frac{1}{2}$ ft. base, 2 ft. high, N. of cor.
-
- East, on a retracement line, along south bdy. of Sec. 31 on 2nd. Standard Parallel South through Range 19 E.
- Over mountainous land through scattering undergrowth; descend.
- 16.00 Bottom of hollow, 150 ft. below Tp. cor., course N. 50° E.; ascend.
- 27.00 Top of ridge, 200 ft. above hollow, bears N. 20° E. and S. 20° W.; descend.

Retracement of Second Standard Parallel, South through Range 19, East.

Chains	
36.50	Bottom of hollow, 150 ft. below ridge, course N.; ascend.
40.30	The Standard $\frac{1}{4}$ sec. cor. on S.bdy. of Sec. 31 cannot be found after diligent search, but as there is an old mound at this point which has evidently been placed for the corner we conclude this is the original corner point, therefore we set a quartzite stone, 20x6x6 ins., 15 ins. in the ground, for Standard $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ S.C.on N. face, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high N.of cor. Pits impracticable.
61.00	Top of ridge, 250 ft. above hollow, bears N. and S;descen.
76.00	Bottom of hollow 350 ft. below ridge, course N.;ascend.
79.40	At this point we find the partially decayed remains of an old stake in old mound of earth and stone. As there are no other evidences of the old Standard sec.cor. to be found after diligent search we conclude this old stake and mound is the original position of the corner, therefore we Set a quartzite stone, 18x10x4 ins., 12 ins. in the ground for Standard corner of Sections 31 and 32, marked with 5 grooves on E. and 1 groove on W.and S.C.on N.faces; and raise a mound of stone, 2 ft.base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable. The course of this line is therefore W. 79.40 chs. Land, mountainous. Soil, white clay and rocky, 3rd and 4th rate. No timber. Undergrowth, shadscales. No grass. Mountainous land, 79.40 chs.
	East, on a retracement line, along south bdy. of sec.32 Over mountainous land, through scattering undergrowth; ascend.

Retracement of Second Standard Parallel South through Range 19 East

Chains	
18.50	Top of ridge, 300 ft. above sec. cor.; descend.
40.10	Fall 4 lks. S.of the Standard $\frac{1}{2}$ sec. cor. which is a sandstone, 7x6x5 ins. above ground, firmly set and marked and witnessed as described by the surveyor general. We raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor.
42.00	Bottom of hollow, 300 ft. below ridge, course N. 20° E.
45.50	Bottom of hollow, course N. 20° W.; ascend.
58.00	Top of ascent, edge of mesa, bears N. 10° W. and S. 10° E. Thence over rolling mesa.
81.30	Fall 9 lks. south of Standard.cor. of secs. 32 and 33 which is a sandstone, 8x8x8 ins. above ground, firmly set and marked and witnessed as described by the surveyor general. We rebuild mound 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable.
	The course of this line is therefore S. $89^{\circ}56'W.$ 81.30 chains.
	Land, mountainous.
	Soil, white clay and gravelly, 3rd rate.
	No timber.
	Undergrowth, shadscales.
	No grass.
	Mountainous land, 81.30 chs..
	November 3, 1901: At the noon hour the sky is overcast and solar observations are impossible.
8.00	East, on a retracement line, along south bdy. of sec. 33. Over rolling mesa through scattering undergrowth.
20.50	Edge of mesa, bears N. and S.; descend.
39.80	Bottom of hollow, 200 ft. below mesa, course N. ascend Fall 1 lk. north of old mound with decayed stake which has every appearance of being the old Standard sec. cor. We conclude after diligent search that this is the true position of original corner, therefore we Set a sandstone, 15x10x6 ins., 10 ins. in the ground, for Standard $\frac{1}{2}$ sec. cor., marked $\frac{1}{4}$ S.C. on N. face; and

Retracement of Second Standard Parallel South through Range 19 East.

Chains	raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable. The course of this line is therefore N. $89^{\circ}59'W.$, 39.180 chains.
	We now off set over the above described corner and run East on a retracement line along the east half of the south side of section 33.
8.00	Top of ridge, 200 ft. above hollow, bears N. $40^{\circ}E.$ and S. $40^{\circ}W.$; descend.
39.00	Bottom of hollow 250 ft. below ridge, course N. $10^{\circ}E.$; ascend.
39.50	Fall 23 lks. north of partially decayed stake in old mound which has every appearance of being the original Standard Section corner. After diligent search we find no other trace, and conclude this is the true position of the original corner, therefore we Set a quartzite stone, 22x6x6 ins., 16 ins. in the ground, for Standard cor. of secs. 33 and 34, marked with S.C. on N., 3 grooves on E. and 3 grooves on W. faces; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable. The course of this line is therefore N. $89^{\circ}40'W.$, 39.50 chains.
	Land, mountainous.
	Soil, gravelly 3rd. rate.
	No timber.
	Undergrowth, shadscales.
	No grass.
	Mountainous land, 39.50 chs.
	East, on a retracement line, along south bdy. of sec 34. Over mountainous land through scattering undergrowth; ascend.
14.00	Top of ridge, 200 ft. above sec. cor. bears N. and S. Descend.

Retracement of Second Standard Parallel South through Range 19 East.

Chains	
19.50	Bottom of hollow, 50 ft. below ridge, course N.; ascend
26.00	Top of ridge, 50 ft. above hollow, Bears N. 10° E. and S. 10° W.; descend.
34.00	Foot of descent. Enter mesa bears N. and S.
39.70	Fall 30 lks. south of Standard $\frac{1}{2}$ sec.cor. which is a sandstone, 10x8x6 ins. above ground, firmly set and marked and witnessed as described by the surveyor general. We build a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable. The course of this line is therefore S. $89^{\circ} 34' W.$ 39.70 chs.
	We offset over above described corner and run East, along the east half of S.bdy. of sec. 34. Over rolling mesa through scattering undergrowth.
40.47	Fall 31 lks. south of Standard corner of Secs. 34 and 35, which is a sandstone, 12x10x4 ins. above ground, firmly set and marked and witnessed as described by the surveyor general. We rebuild mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. The course of this line is therefore S. $89^{\circ} 34' W.$ 40.47 chains.
	Land, nearly level. Soil, sandy loam 2nd rate. No timber. Undergrowth, sage and shadscales. Mountainous land, 34.00 chs.
39.78	East, on a retracement line along south bdy. of sec. 35. Over rolling mesa land through scattering undergrowth Fall 30 lks. south of Standard $\frac{1}{2}$ sec.cor. which is a sandstone, 10x5x4 ins., above ground, firmly set and marked and witnessed as described by the surveyor general. We rebuild mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable. The course of this line is therefore S. $89^{\circ} 34' W.$ 39.78 chs.

Retracement of Second Standard Parallel South through Range 19 East

Chains We offset over the above described corner and run
East, on a retracement line along the East half of
the south side of sec. 35.

40.44 Fall 5 lks. north of the Standard corner of secs. 35
and 36 which is a sandstone 18x18x6 ins., firmly set
and marked and witnessed as described by the surveyor
general. We rebuild mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft.
high, N.of cor.

The course of this line is therefore N.89° 56'W.

40.44 chains.

Land, nearly level.

Soil, sandy loam 2nd rate.

Undergrowth, sage and shadscales.

No timber.

East, on a retracement line, along south bdy. of
Section 36.

37.11 Fall 13 lks. north of the closing corner of Tps. 11
S.Rs. 19 and 20 East, heretofore described.

The course of this line is therefore N.89° 48'W.

37.11 chains.

Land, nearly level.

Soil, sandy 2nd rate..

No timber.

Undergrowth, sage and shadscales.

November 3, 1901.

Boundaries of T. 11 S. R. 19 E. Concluded.

Latitudes, departures and closing errors.

Line designated	True bearing	Dist- ance	Latitudes		Departures	
			N. chs.	S. chs.	E. chs.	W. chs.
E.bdy.T.11 S.R.19 E.	South	478.52 474.92	478.52			
S.bdy.T.11 S.R.19 E.	West	480.20				480.20
W.bdy.T.11 S.R.19 E.	North	477.80	477.80			
N.bdy.T.11 S.R.19 E.	East	121.00			121.00	
N.bdy.T.11 S.R.19 E.	N.89° 56'E.	81.30	.09		81.30	
N.bdy.T.11 S.R.19 E.	S.89° 59'E.	39.80		.01	39.80	
N.bdy.T.11 S.R.19 E.	S.89° 40'E.	39.50		.23	39.50	
N.bdy.T.11 S.R.19 E.	N.89° 34'E.	119.95	.91		119.95	
N.bdy.T.11 S.R.19 E.	S.89° 56'E.	40.44		.05	40.44	
Convergency					.60	
N.bdy.T.11 S.R.19 E.	S.89° 48'E.	37.11		.13	37.11	
			478.80	478.94	479.70	480.20
Error in lat.			478.80		479.70	
Error in dep.				.14		.50

This township is partly mountainous and partly high rolling mesas and the entire township is very dry and desert like. There is no water in the township at this season of the year. It is of very little value except for winter grazing.

John R. Stewart
John R. Stewart
U.S. Deputy Surveyors.

November 3, 1901.

Note: We did not find any of the one sixteenth corners on this boundary and it is our belief

that they were not set in the original survey.

BLANK

PAGE

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Scott P. Stewart and John R. Stewart, United States Deputy Surveyors to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the Third Standard Parallel South, through Ranges 18, 19, and 20 East; and the survey of the Second Standard Parallel South, through Ranges 19 and 20 East, showing the respective capacities in which they acted:

Andy J. Stewart	Edwin A. Peay	, Chainman.
Nelco Call	Hugh Conover	, Chainman.
Clarence S. Jarvis		, Moundman.
John J. Harding		, Moundman.
George W. Elkins		, Axman.
Harry Burton		, Axman.
Harvey R. Booth		, Flagman.
Gilbert Burr		, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Scott P. Stewart and John R. Stewart, United States Deputy Surveyors in surveying all those parts or portions of the Third Standard Parallel South, through Ranges 18, 19, and 20 East; and the resurvey of the Second Standard Parallel South, through Ranges 19 and 20 East, of the Salt Lake

base and meridian, State of Utah, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for Utah.

Andy J. Stewart	Edwin A. Peay	, Chainman.
Nelco Call	Hugh Conover	, Chainman.
Clarence S. Jarvis		, Moundman.
John J. Harding		, Moundman.
George W. Elkins		, Axman.
Harry Burton		, Axman.
Harvey R. Booth		, Flagman.
Gilbert Burr		, Flagman.

Subscribed and sworn to before me this 20th day of November 1901, +00 }



Andrew J. Stewart for
Notary Public

My commission expires March 17, 1903.

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

SACRAMENTO, CALIFORNIA, April 12, 1901. United States Deputy Surveyor
acknowledges sworn that, in pursuance of a contract received from Edward H. Anderson,
United States Surveyor General for Utah, working there
on April 12, 1901, he have well, faithfully, and truly, in proper preserving and in strict conformity with the instructions furnished by the United States Surveyor
General for Utah, observed all those parts or portions of the Second Standard Parallel
through Range 11, 12, and 13 East; and the subsequent and resurvey
of the Second Standard Parallel South through Range 14 and
East

of the Salt Lake
Survey, so far as having been surveyed by me, and under my direction; and also further sworn
that all the reports of said survey have been established and perpetuated in strict accordance
with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor
General for Utah, and in the specific manner described in the field notes, and
the foregoing are the original field notes of such survey; and should any fraud be detected, I will incur
the penalty of perjury under the provisions of an Act of Congress approved August 8, 1848.

John R. Stewart
United States Deputy Surveyor

Subscribed by said John R. Stewart, and sworn to before me,

this 12th day of January, 1901.

Edward H. Anderson
United States Surveyor General for Utah

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL.

SACRAMENTO, CALIFORNIA, April 12, 1901.
The foregoing field notes of the survey of John R. Stewart and Edward H. Anderson
through Range 14 East of the Second Standard Parallel, in the
state of Utah, were submitted to me for examination and approval on April 12, 1901, having
been examined, and the necessary corrections and explanations made, the said field notes, and
the accompanying drawings, are hereby approved.

Edward H. Anderson
United States Surveyor General for Utah, April 12, 1901, having
carefully examined, and the necessary corrections and explanations made, the said field notes, and
the accompanying drawings, are hereby approved.

Edward H. Anderson
United States Surveyor General for Utah, April 12, 1901.

I certify that the foregoing transcript of the field notes of the above-described survey is
an exact copy of the original notes, and has been carefully copied from the original notes on file in this office.

BLANK

PAGE

BLANK

PAGE

X.

FIELD NOTES

OF THE SURVEY OF THE

SUBDIVISION

of

Township No. 11 South, Range No. 19 East.

Of the SALT LAKE BASE AND Meridian,

in the STATE OF UTAH,

AS SURVEYED BY

Scott P. Stewart and John R. Stewart, United States Deputy Surveyors
Under their Contract No. 242, dated April 12, 1901.

Survey commenced November 3, 1901.

Survey completed November 9, 1901.

Book 572 by 50 ✓
Closing

S. P. H. ✓

NAMES AND DUTIES OF ASSISTANTS.

Andy J. Stewart	Chairman
Edwin A. Peay	Chairwoman
Vance Call	Chairwoman
Hugh Conover	Chairwoman
Clarence S. Jarvis	Member
John J. Harding	Member
George W. Elkins	Asst.
Harry Burton	Asst.
Harvey R. Booth	Flagman
Gilbert Burr	Flagman

Familiarity affords its own best defense. — P. B. S. P.

INDEX DIAGRAM.

Township _____, *Range* _____

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Meanders Page _____

PRELIMINARY OATHS OF ASSISTANTS.

WE, _____ and _____

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; we will report the true distances to all notable objects, and the true lengths of all lines that we assay measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of _____

_____, Chain

_____, Chain

Subscribed and sworn to before me this _____
day of _____, 1899 } }



WE, _____ and _____

do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of _____

_____, Mound

_____, Mound

Subscribed and sworn to before me this _____
day of _____, 1899 } }



WE, _____ and _____

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of _____

_____, Ax

_____, Ax

Subscribed and sworn to before me this _____
day of _____, 1899 } }



I, _____, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of _____

_____, Flag

Subscribed and sworn to before me this _____
day of _____, 1899 } }



Subdivision of T.11 S. R.19 E.

Survey commenced November 3, 1901, and executed with a W. and L.E. Gurley light mountain transit, No. 3, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc; which is also the least count of the latitude and declination arcs; and a W. and L.E. Gurley plain transit, No. 2, of which the horizontal limb is provided with one double vernier reading to single minutes of arc.

The instruments were examined, tested on the true meridian at Salt Lake City, found correct, and were approved by the surveyor general for Utah, the former on June 6, 1901, and the latter on May 29, 1901.

We examine the adjustments of the instruments, and correct the level and collimation errors, then, to test the solar apparatus, of the No. 3 instrument, by comparing its indications resulting from solar observations made during p.m. and a.m. hours, with a true meridian established by observation on Polaris, with the No. 2 instrument, we proceed as follows:

At the cor. of secs. 1, 2, 35, and 36, on S. bdy. of Tp, here-tofore described, latitude $39^{\circ} 49' N.$, longitude $109^{\circ} 47' W.$, we set off $39^{\circ} 49' N.$, on the lat. arc; $15^{\circ} 02' S.$, on the decl. arc; and determine a true meridian with the solar and mark a point thereof on a stone, firmly set in the ground, 5.00 chs. N. of the cor. (This observation taken at 3 h 30 m p.m., l.m.t.)

November 3, 1901.

November 4, 1901: At 4 h 24 m a.m., l.m.t., we observe Polaris at western elongation, with the No. 2 instrument, in accordance with the Manual, and mark a point in the line thus determined, by a tack driven in a wooden plug, set in the ground, 5.00 chs. N. of our station. At 7 h 30 m a.m., l.m.t., we lay off the azimuth of Polaris $1^{\circ} 35.6'$ to the east, and mark a point in the

Subdivision of T.11 S. R.19 E.-Continued.

- Chains true meridian thus determined, by cutting a small groove in the stone already set 5.00 chs. N. of our station; this mark falls 0.41 ins. east of the true meridian determined with the solar.
- At 8 h 0 m a.m., l.m.t., we set off $39^{\circ}49'N.$, on the lat. arc; $15^{\circ}14'S.$, on the decl. arc; and mark a point in the true meridian determined with the solar, by a cross on the stone already set 5.00 chs. N. of the cor.; this mark falls 0.22 ins. east of the true meridian established by Polaris observation.
- The solar apparatus of the No. 3 instrument, by p.m. and a.m. observations, defines positions for true meridians respectively about $0'21''$ west and $0'12''$ east of the true meridian established by Polaris observation; therefore we conclude that the adjustments of the instruments are satisfactory.
- The magnetic bearing of the true meridian, at 8 h 3 m a.m., l.m.t., is $16^{\circ}17'W.$, the angle thus determined reduced by the table page 100 of the Manual, gives the mean mag. decl. $16^{\circ}14'E.$.
- From the above described cor
We run
N. $0^{\circ}01'W.$, bet. secs. 35 and 36.
Over mountainous land; through scattering undergrowth; descend gradually.
- 32.00 Bottom of hollow, 100 ft. below sec. cor., course N. $60^{\circ}W.$; ascend.
- 40.00 Set a sandstone, 24x8x5 ins., 18 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
- 40.50 Top of ridge, 75 ft. above hollow, bears N. $20^{\circ}W.$ and S. $20^{\circ}E.$; descend.
- 62.00 Bottom of hollow, 75 ft. below ridge, course N.W.; ascend.
- 73.00 Top of ridge, 40 ft. above hollow, bears N.W. and S.E.;

Subdivision of T.11 S., R.19 E.-Continued.

Chains	descend.
77.50	Bottom of hollow, 50 ft. below ridge, course N.80°W.; ascend.
80.00	Set a sandstone, 16x10x8 ins., 11 ins. in the ground, for cor. of secs. 25, 26, 35, and 36, marked with 1 notch on S. and 1 notch on E. edges; and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, clay loam and rocky; 2nd and 4th rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, 80.00 chs.

	East, on a random line bet. secs. 25 and 36.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.10	Intersect E. bdy. of Tp., at the cor. of secs. 25, 30, 31, and 36, heretofore described. Thence we run West, on a true line bet. secs. 25 and 36. Over mountainous land; through scattering undergrowth; descend.
33.00	Bottom of hollow, 150 ft. below sec. cor., course W.; thence along bottom of hollow.
40.05	Set a sandstone, 18x8x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor. Pits impracticable.
47.00	Leave bottom of hollow, course N.60°W.; ascend.
47.50	Trail, bears N.60°W. and S.80°E.;
58.00	Top of ridge, 60 ft. above hollow, bears N.W. and S.E.; descend.
62.00	Bottom of hollow, 40 ft. below ridge, course N.W.; ascend.
73.00	Top of ridge, 40 ft. above hollow, bears N.W. and S.E.;

Subdivision of T.11 S., R.19 E -Continued

Chains	descend.
80.10	<p>The cor.of secs.25,26,35, and 36.</p> <p>Land,mountainous.</p> <p>Soil,clay loam and rocky;3rd and 4th rate.</p> <p>No timber.</p> <p>Undergrowth,sage brush and greasewood.</p> <p>Good grass for grazing.</p> <p>Mountainous land ,80.10 chs.</p>
	<hr/>
	<p>N.0°01'W.,betsecs.25 and 26.</p> <p>Over mountainous land;through scattering undergrowth;ascend abruptly.</p>
5.75	Top of ridge,175 ft.above sec.cor.,bears N.80°W.and S.80°E.;descend.
40.00	Set a limestone,16x9x4 ins.,11 ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ on W.face;and raise a mound of stone,2 ft.base, $1\frac{1}{2}$ ft.high,W.of cor.Pits impracticable.
48.80	Foot of descent,500 ft.below ridge,bears N.20°E.and S.20°W.;enter dense undergrowth;enter bottom of Hill Creek Canon. Trail,bears N.20°E.and S.20°W.
63.50	Hill Creek bed(dry),20 lks.wide,6 ft.deep,course N.20°E..
73.50	Leave canon bottom,bears N.20°E.and S.20°W.;leave dense undergrowth, and enter scattering undergrowth;ascend.
73.60	Trail,bears N.20°E.and S.20°W..
80.00	<p>Set a limestone,24x12x7 ins.,18 ins.in the ground,for cor.of secs.23,24,25, and 26,marked with 2 notches on S.and 1 notch on E.edges;and raise a mound of stone,2 ft.base,$1\frac{1}{2}$ ft.high,W.of cor.Pits impracticable.</p> <p>Land,mountainous.</p> <p>Soil,clay loam and rocky;3rd and 4th rate.</p> <p>No timber.</p> <p>Undergrowth,sage brush in canon bottom and shadscales</p>

Subdivision of T 11 S R 19 E -Continued

Chains	on mountainous land.
	Good grass for grazing.
	Mountainous land, or land covered with dense under-growth, 80.00 chs.
	East, on a random line bet. secs. 24 and 25.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.14	Intersect E. bdy. of Tp, at the cor. of secs. 19, 24, 25, and 30, heretofore described.
	Thence we run
	✓ West, on a true line bet. secs. 24 and 25.
	Over mountainous land; through scattering shadscales; descend gradually.
30.00	Bottom of hollow, 100 ft. below sec. cor., course N. 20° W.; ascend.
40.07	Set an oil shale stone, 18x6x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
43.50	Top of ridge, 40 ft. above hollow, bears N. and S.; descend.
57.50	Foot of descent, 200 ft. below ridge, bears N. 20° E. and S. 20° W.; enter bottom of Hill Creek Canon. Enter dense greasewood.
57.75	Trail in canon, bears N. 20° E. and S. 20° W.
68.80	Hill Creek Bed (dry), 20 lks. wide, 6 ft. deep, course N. 20° E.
72.85	Trail in canon, bears N. 20° E. and S. 20° W.
73.00	Leave canon bottom, bears N. 20° E. and S. 20° W.; ascend over rolling mountainous country.
80.14	The cor. of secs. 23, 24, 25, and 26.
	Land, mountainous and level.
	Soil, white clay loam and rocky; 3rd and 4th rate.
	No timber.
	Undergrowth, shadscales and greasewood.

Subdivision of T. 11 S., R. 19 E.-Continued.

	Chains	Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.14 chs.
		N. 0° 01' W., bet. secs. 23 and 24. Over rolling mountains; through scattering undergrowth; Ascend.
4.50		Top of ridge, 80 ft. above sec. cor., bears E. and W.; descend.
11.50		Bottom of hollow, 100 ft. below ridge, course E.; ascend.
15.85		Foot of perpendicular ledge, 30 ft. high, bears N.E. and S.W.
22.00		Top of ridge, 200 ft. above hollow, bears E. and W.; descend.
36.50		Trail, bears N. 80° E. and S. 80° W.
40.00		Set an oil shale stone, 16x8x8 ins., 11 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on T. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
42.50		Bottom of hollow, 50 ft. below ridge, course E.; ascend.
65.00		Begin abrupt ascent, bears N. 80° E. and S. 80° W.
80.00		Set a sandstone, 18x8x8 ins., 12 ins. in the ground, for cor. of secs. 13, 14, 23, and 24, marked with 3 notches on S. and 1 notch on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, clay loam and rocky; 2nd and 4th rate. No timber. Undergrowth; shadscales and sage brush. Good grass for grazing. Mountainous land, 80.00 chs.
		November 4, 1901: At this cor. we set off $15^{\circ} 19' S.$, on the decl. arc; and at 0 h 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $39^{\circ} 51' N.$

Subdivision of T.11 S., R.19 E.-Continued.

- Chains East, on a random line bet. secs. 13 and 24.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 80.06 Intersect E. bdy. of Tp., 5 lks. S. of the cor. of secs. 13, 18, 19, and 24, heretofore described.
Thence we run
S. $89^{\circ} 58' W.$, on a true line bet. secs. 13 and 24.
Over level bottom of Hill Creek Canon, through dense greasewood.
- 14.00 Leave canon bottom, bears N. and S.; leave dense grease wood and enter scattering shadscales and sage brush; ascend.
- 40.03 Set a sandstone, 24x12x4 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
- 48.00 Top of ridge, 250 ft. above canon, bears N. $60^{\circ} E.$ and S. $60^{\circ} W.$; descend.
- 55.00 Bottom of hollow, 50 ft. below ridge, course N. $60^{\circ} E.$; ascend.
- 70.00 Begin more abrupt ascent, bears N. $10^{\circ} E.$ and S. $10^{\circ} W.$.
- 80.06 The cor. of secs. 13, 14, 23, and 24.
Land, mountainous and level.
Soil, white clay loam and rocky; 3rd and 4th rate.
No timber.
Undergrowth, sage brush, shadscales, and greasewood.
Good grass for grazing.
Mountainous land, or land covered with dense undergrowth, 80.06 chs.
-
- N. $0^{\circ} 01' W.$, bet. secs. 13 and 14.
Over mountainous land; through scattering undergrowth; ascend abruptly.
- 1.00 Top of ridge, 25 ft. above sec. cor., bears N. $80^{\circ} E.$ and S. $80^{\circ} W.$; descend.
- 15.50 Trail, bears N. $80^{\circ} E.$ and S. $80^{\circ} W.$

Subdivision of T. 11 S. R. 19 E.-Continued.

Chains	
16.00	Bottom of hollow, 350 ft. below ridge, course N.80°E.; ascend.
25.00	Foot of perpendicular ledge, 30 ft. high, bears N.80°E. and S.80°W. Thence over a series of ledges, bears N.80°E. and S.80°W.
33.00	Leave ledges, bears N.80°E and S.80°W.
33.40	Top of ascent, 200 ft. above hollow, bears N.80°E. and S.80°W.; thence over rolling mesa through dense undergrowth.
40.00	Set a sandstone, 18x6x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
80.00	Set a sandstone, 18x8x4 ins., 12 ins. in the ground, for cor.of secs. 11, 12, 13, and 14, marked with 4 notches on S. and 1 notch on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable. Land, mountainous and rolling mesa. Soil, clay loam and rocky; 2nd and 4th rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	N.89° 58' E., on a random line bet.secs. 12 and 13.
40.00	Set temp. $\frac{1}{2}$ sec.cor.
80.00	Intersect E.bdy. of Tp, 10 lks. N.of the cor.of secs. 7, 12, 13, and 18, heretofore described. Thence we run N.89° 54' W., on a true line bet.secs. 12 and 13. Over mountainous land; through scattering undergrowth; descend.
16.50	Top of perpendicular ledge, 15 ft. high, bears N. and S.

Subdivision of T. 11 S. R. 19 E.-Continued.

Chains	
18.10	Bottom of hollow, 200 ft. below sec.cor., course N.10°E. about 10.00 chs. thence S.80°E.; ascend.
18.85	Trail, bears N.10°E. and S.10°W.
20.65	Foot of perpendicular sandstone, ledge, 25 ft. high, bears N. and S.80°W.
28.00	Top of ascent, 200 ft. above hollow, bears N.10°E. and S. 10°W.; thence over rolling mesa, through dense under- growth.
40.03	Set a sandstone, 18x10x5 ins., 12 ins. in the ground, for $\frac{1}{2}$. sec.cor., marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impractic- able.
80.06	The cor.of secs.11,12,13, and 14. Land, mountainous and rolling mesa.. Soil, clay loam and rocky; 2nd and 4th rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land or land covered with dense under- growth, 80.06 chs.
	N.0°01'W., bet. secs.11 and 12. Over rolling mesa; through dense undergrowth .
40.00	Set a limestone, 18x8x6 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impractic- able.
80.00	Set a limestone, 24x9x6 ins., 18 ins. in the ground, for cor.of secs.1,2,11, and 12, marked with 5 notches on S. and 1 notch on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable. Land, rolling mesa. Soil, clay loam; 3rd rate. No timber.

Subdivision of T.11 S., R.19 E.-Continued.

	Chains	Undergrowth, sage brush and shadscales. Good grass for grazing. Land covered with dense undergrowth, 80.00 chs.
		S.89° 54' E., on a random line bet. secs. 1 and 12.
.40.00		Set temp. $\frac{1}{4}$ sec.cor.
79.70		Intersect E.bdy. of Tp., at the cor. of secs. 1, 6, 7, and 12, heretofore described. Thence we run N.89° 54' W., on a true line bet. secs. 1 and 12. Over rolling mesa; through dense undergrowth.
39.85		Set a sandstone, 20x10x4 ins., 15 ins., in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
79.70		The cor. of secs. 1, 2, 11, and 12. Land, rolling mesa. Soil, clay loam and sandy loam 2nd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Land covered with dense undergrowth, 79.70 chs.
		Note: On account of this line closing on the 2nd Standard Parallel South, we run N.0° 01' W., on a true line bet. secs. 1 and 2. Over rolling mesa; through dense undergrowth.
40.00		Set a sandstone, 20x12x6 ins., 16 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
78.60		Intersect the 2nd Standard Parallel South, 1.98 chs. S.89° 34' W. from the standard $\frac{1}{4}$ sec.cor., on south side of sec. 55, heretofore described. Set a sandstone, 18x10x4 ins., 12 ins. in the ground, for closing cor. of secs. 1 and 2, marked C.C. on S., with 1

Subdivision of T.11 S., R.19 E.-Continued.

- Chains groove on E. and 5 grooves on W. faces; and raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor. Pits impracticable.
Land, rolling mesa.
Soil, sandy and clay loam; 2nd rate.
No timber.
Undergrowth, sage brush and shadscales.
Good grass for grazing.
Land covered with dense undergrowth, 78.60 chs.

November 4, 1901.

November 5, 1901: At 8 h 0 m a.m., l.m.t., we set off
39° 49' N., on the lat. arc; 15° 33' S., on the decl. arc;
and determine a true meridian with the solar, at the
cor. of secs. 2, 3, 34, and 35, on S. bdy. of Tp., heretofore
described.

Thence we run

N. 0° 01' W., bet. secs. 34 and 35.

Over mountainous land; through dense undergrowth; descend.

- 10.00 Foot of descent, 100 ft. below sec. cor., bears N.W. and S. 60° E.; enter bottom of Hill Creek Canon.
- 40.00 Set a limestone, 18x7x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.
- 72.50 Leave canon bottom, bears N. 30° E. and S. 30° W.; ascend.
- 80.00 Set a limestone, 18x8x4 ins., 12 ins. in the ground, for cor. of secs. 26, 27, 34, and 35, marked with 1 notch on S. and 2 notches on E. edges; and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.
Land, mountainous and level canon bottom.
Soil, sandy and clay loam and gravelly; 2nd and 3rd rate.
No timber.

Subdivision of T. 11 S. R. 19 E -Continued

- Chains Undergrowth,sage brush and greasewood.
- Good grass for grazing.
- Mountainous land,or land covered with dense undergrowth,80.00 chs.
- East, on a random line bet. secs. 26 and 35.
- 40.00 Set temp. $\frac{1}{2}$ sec.cor.,
- 78.80 Intersect N.and S.line, 20 lks.S.of the cor.of secs. 25,26,35, and 36.
Thence we run
S.89° 51' W., on a true line bet. secs. 26 and 35.
Over mountainous land; through dense undergrowth; descend to Hill Creek Canon.
- 17.00 To point from which two stone mounds about 12x12x12 ft.bear S.69° W. and S.70° 30' W., respectively, each about 50.00 chs.dist.
- 36.50 Foot of descent, 250 ft. below sec.cor., bears N.E. and S.W.; enter bottom of Hill Creek Canon.
- 38.75 Trail in canon,bears N.E. and S.W.
- 39.90 Set a limestone, 18x8x4 ins., 12 ins.in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft.base, 1 $\frac{1}{2}$ ft.high,N.of cor.Pits impracticable.
- 47.50 Hill Creek bed(dry), 30 lks.wide, 10 ft.deep, course N. 30° E.
- 67.50 Leave canon bottom,bears N.E. and S.W.; ascend.
- 78.80 The cor.of secs. 28,27,34, and 35.
Land,mountainous and level.
Soil,clay loam and gravelly; 2nd and 3rd rate.
No timber.
Undergrowth,sage brush and greasewood.
Good grass for grazing.
Mountainous land,or land covered with dense undergrowth,78.80 chs.

Subdivision of T 11 S. R^o 19 E -Continued

Chains	N.0° 01'W., bet. secs. 26 and 27. Over mountainous land; through scattering undergrowth; ascend.
35.00	Begin abrupt ascent, bears E. and W.
40.00	Set a limestone, 16x14x4 ins., 11 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
42.00	Top of bluff, 250 ft. above sec. cor. and 50 ft. above $\frac{1}{2}$ sec. cor., bears N.75° E. and S.75° W.; descend.
61.00	Bottom of hollow, 50 ft. below bluff, course N.50° E.; ascend.
72.00	Top of ascent, 100 ft. above hollow, bears E. and W.; thence over rolling mesa, through dense undergrowth.
80.00	Set a gray limestone, 20x9x8 ins., 15 ins. in the ground, for cor. of secs. 22, 23, 26, and 27, marked with 2 notches on S. and 2 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	Land, mountainous and rolling mesa.
	Soil, clay and gravelly; 3rd rate.
	No timber.
	Undergrowth, sage brush and shadscales.
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth, 80.00 chs.

N.89° 51'E., on a random line bet. secs. 23 and 26.

- 40.00 Set temp. $\frac{1}{2}$ sec. cor.
79.70 Intersect N. and S. line, at the cor. of secs. 23, 24, 25, and 26.

Thence we run

S.89° 51'W., on a true line bet. secs. 23 and 26.

Over mountainous land; through scattering undergrowth;

Subdivision of T.11 S. R.18 E.-Continued.

Chains	ascend gradually.
39.85	Set a sandstone, 18x8x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
71.00	Top of ascent, 300 ft. above sec.cor., bears N. and S.; thence over rolling mesa, through dense undergrowth.
79.70	The cor. of secs. 22, 23, 26, and 27. Land, mountainous and rolling mesa. Soil, clay loam and gravelly; 2nd and 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.70 chs.
	N. 0° 01' W., bet. secs. 22 and 23. Over rolling mesa; through dense undergrowth: 5.00 Leave mesa, bears E. and W.; descend over rolling white hill. 40.00 Set a limestone, 15x11x4 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. 43.00 Bottom of hollow, 200 ft. below mesa, course E.; ascend. 49.50 Top of ascent, 175 ft. above hollow, bears N. 60° E. and S. 60° W.; thence over rolling mesa. 80.00 Set a limestone, 24x12x4 ins., 18 ins. in the ground, for cor. of secs. 14, 15, 22, and 23, marked with 3 notches on S. and 2 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous ..and rolling mesa. Soil, sandy and clay ; 3rd rate. No timber. Undergrowth, sage brush and shadscales.

Subdivision of T 11 S .R 19 E -Continued

Chains	Good grass for grazing. Mountainous land,or land covered with dense undergrowth,80.00 chs. November 5,1901:At the noon hour the sky is overcast and solar observations are impossible.
	N.89° 51'E.,on a random line betsecs.14 and 23.
40.00	Set temp. at sec.cor.
60.02	Intersect.N.and S.line,at the.cor.of secs.13,14,23 , and 24. Thence we run S.89° 51'W.,on a true line betsecs.14 and 23. Over mountainous land;through dense undergrowth;ascend gradually along hill side.
20.00	Top of ridge,50 ft.above sec.cor.,bears N.25° E.and S.25° W.;descend.
40.01	Set a limestone,15x10x4 ins.,10 ins.in the ground,for sec.cor.,marked $\frac{1}{2}$ on N.face;and raise a mound of stone,2 ft.base, $1\frac{1}{2}$ ft.high,N.of cor.Pits impracticable.
58.25	Bottom of hollow,200 ft.below ridge,course N.70° E. ; ascend.
67.00	Top of ascent,125 ft.above hollow,bears N.and S. ; thence over rolling mesa:
80.02	The cor.of secs.14,15,22, and 23. Land,mountainous and rolling mesa. Soil,white clay loam and gravelly;3rd rate. No timber. Undergrowth,sage brush and shadscales. Good grass for grazing. Mountainous land,or land covered with dense undergrowth,80.02 chs.

Subdivision of T 11 S R 18 E - Continued

Chains

N.0° 01'W., bet. secs. 14 and 15.

Over rolling mesa; through dense undergrowth.

40.00 Set a limestone, 24x8x6 ins., 18 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.

80.00 Set a limestone, 18x10x7 ins., 12 ins. in the ground, for cor.of secs. 10, 11, 14, and 15, marked with 4 notches on S. and 2 notches on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.

Land, rolling mesa.

Soil, clay and sandy loam; 2nd and 3rd rate.

No timber.

Undergrowth, sage brush, greasewood, and shadscales.

Good grass for grazing.

Land, covered with dense undergrowth, 80.00 chs.

N.89° 51'E., on a random line bet.secs. 11 and 14.

40.00 Set temp. $\frac{1}{2}$ sec.cor.

79.80 Intersect N, and S.line, 10 lks. N.of the cor.of secs. 11, 12, 13, and 14.

Thence we run

S.89° 55'W., on a true line bet.secs. 11 and 14.

Over rolling mesa; through dense undergrowth.

38.80 Set a limestone, 18x5x5 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable.

79.80 The cor.of secs. 10, 11, 14, and 15.

Land, rolling mesa.

Soil, clay and sandy loam; 2nd. and 3rd rate.

No timber.

Undergrowth, sage brush and shadscales.

Subdivision of T.11 S. R.19 E.-Continued.

- | | |
|--------|---|
| Chains | Good grass for grazing.
Land covered with dense undergrowth, 79.80 chs. |
| <hr/> | |
| | N.0°01'W., bet. secs. 10 and 11.
Over rolling mesa; through dense undergrowth. |
| 40.00 | Set a limestone, 20x10x4 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable. |
| 80.00 | Set a limestone, 20x7x4 ins., 15 ins. in the ground, for cor.of secs. 2,3,10, and 11, marked with 5 notches on S.and 2 notches on E.edges; and raise a mound of stone, 2 ft.base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
Land, rolling mesa.
Soil, clay and sandy loam; 2nd and 3rd rate.
No timber.
Undergrowth, sage brush and shadscales.
Good grass for grazing.
Land covered with dense undergrowth, 80.00 chs. |
| <hr/> | |
| | N.89°55'E., on a random line bet.secs. 2 and 11. |
| 40.00 | Set temp. $\frac{1}{4}$ sec.cor. |
| 79.92 | Intersect N.and S.line, 10 lks.N.of the cor.of secs. 1,2,11, and 12.
Thence we run
S.89°59'W., on a true line bet.secs. 2 and 11.
Over rolling mesa; through dense undergrowth. |
| 39.96 | Set a limestone, 18x8x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable. |
| 79.92 | The cor.of secs. 2,5,10, and 11.
Land, rolling mesa.
Soil, clay and sandy loam; 2nd and 3rd rate. |

Subdivision of T. 11 S., R. 19 E. -Continued.

Chains	No timber. Undergrowth, sage brush, greasewood, and shadscales. Good grass for grazing. Land covered with dense undergrowth, 78.92 chs.
	November 5, 1901.
	November 6, 1901: At 8 h. 0 m. a.m., I. M. T., we set off 39° 53' N., on the lat. arc; 15° 51' S., on the decl. arc; and determine a true meridian with the solar, at the cor. of secs. 2, 3, 10, and 11. Thence we run a line N. 0° 01' W., on a true line bet. secs. 2 and 3. For reasons already explained. Over rolling mesa; through dense undergrowth.
40.00	Set a limestone, 18x12x4 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
77.90	Intersect, 2nd Standard Parallel South, 1.50 chs. S. 89° 34' W., from the standard $\frac{1}{2}$ sec. cor., on south bdy. of sec. 34, heretofore described. Set a quartzite, stone, 24x12x5 ins., 18 ins. in the ground, for closing cor. of secs. 2 and 3, marked C.C. on S., with 2 grooves on E. and 4 grooves on W. faces; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, S. of cor. Pits impracticable. Land, rolling mesa. Soil, clay and sandy loam; 2nd and 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Land covered with dense undergrowth, 77.90 chs.

Subdivision of T.11 S., R.19 E.-Continued.

Chains	From the cor.of secs.3,4,33, and 34, on S.bdy.of Tp., heretofore described. We run N.0°02 'W.,bet.secs.33 and 34. Over mountainous land,through scattering undergrowth; ascend .
1.70	Top of ridge,50 ft.above sec.cor.,bears N.80°E.and S.80°W.;descend .
7.50	Bottom of hollow,50 ft.below ridge,course N.80°E.,;ascend .
24.50	Top of ridge,65 ft.above hollow,bears N.60°E.and S.60°W.;descend .
29.00	Bottom of hollow,50 ft.below ridge,course N.60°E.;ascend .
37.50	Top of ridge,50 ft.above hollow,bears N.60°E.,and S.60°W.;descend .
40.00	Set a sandstone,16x8x5 ins.,11 ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{2}$ on W.face;and raise a mound of stone,2 ft.base, $1\frac{1}{2}$ ft.high,W.of cor.Pits impracticable.
46.00	Bottom of hollow,100 ft.below ridge,course N.80°E.;ascend .
61.00	Top of ridge,60 ft.above hollow,bears N.80 °E.and S.80°W.;descend .
66.00	Bottom of hollow,40 ft.below ridge,course N.80°E.;ascend .
80.00	Set a sandstone,18x8x6 ins.,12 ins.in the ground,for cor.of secs.27,28,33, and 34,marked with 1 notch on S.and 3 notches on E.edges;and raise a mound of stone,2 ft.base, $1\frac{1}{2}$ ft.high,W.of cor.Pits impracticable.
	Land ,Mountainous..
	Soil,sandy and clay loam;3rd rate.
	No timber.
	Undergrowth,sage brush and shadscales.

Subdivision of Mill C., R. 19 E.-Continued.

Chains	Good grass for grazing . Mountainous land, 80.00 chs.
	East, on a random line bet. secs. 27 and 34.
40.00	Set temp. $\frac{1}{2}$ sec.cor.
80.00	Intersect N. and S. line at the cor. of secs. 26, 27, 34, and 35. Thence we run West, on a true line bet. secs. 27 and 34. Over mountainous land ; through scattering undergrowth; ascend gradually .
40.00	Set an pil shale stone, 16x8x4 ins., 11 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N. face; und raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
54.00	Top of ridge, 200 ft. above $\frac{1}{2}$ sec.cor., bears N. and S.; descend .
60.00	Bottom of hollow, 60 ft. below ridge, course S. 60° E.; ascend .
80.00	The cor. of secs. 27, 28, 33, and 34. Land, mountainous. Soil, sandy and gravelly; 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, 80.00 chs.
	N. 0° 02' "., bet. secs. 27 and 28. Over mountainous land; through scattering undergrowth; ascend :)
4.00	Top of ridge, 25 ft. above sec.cor., bears N. 80 ° E. and S. 80° W.; descend .
9.00	Bottom of hollow, 60 ft. below ridge, course N. 80° E.; ascend .

2 /

Subdivision of T.11 S., R.19 E.-Continued.

Chains

- 15.37 Top of ridge, 60 ft. above hollow, bears E. and W.; descend.
- 18.00 Bottom of hollow, 25 ft. below ridge, course E.; ascend.
- 40.00 Set a sandstone, 24x10x5 ins., 18 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
- 48.50 Top of ridge, 250 ft. above hollow, bears E. and W.; descend.
- 58.00 Bottom of hollow, 150 ft. below ridge, course S.E.; ascend. Enter dense undergrowth, bears with hollow.
- 70.00 Top of ascent, 180 ft. above hollow, bears N. 80° E. and S. 80° W.; thence over rolling mesa.
- 80.00 Set a limestone, 18x8x7 ins., 12 ins. in the ground, for cor. or secs. 21, 22, 27, and 28, marked with 2 notches on S. and 3 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
- Land, mountainous and rolling mesa.
- Soil, sandy and clay loam; 3rd rate.
- No timber.
- Undergrowth, sage brush and shadscales.
- Good grass for grazing.
- Mountainous land, or land covered with dense undergrowth, 80.00 chs.
- November 6, 1901: At the noon hour the sky is overcast and solar observations are impossible.

East, on a random line bet. secs. 22 and 27.

- 40.00 Set temp. $\frac{1}{2}$ sec.cor.
- 80.20 Intersect N. and S. line, 5 lks. S. of the cor. of secs. 22, 23, 26, and 27.
- Thence we run
 $S.89^{\circ}58'W.$, on a true line bet. secs. 22 and 27.
- Over rolling mesa; through dense undergrowth.
- 13.00 Leave mesa, bears N. and S.; descend.

Subdivision of T. 11 S., R. 19 E.-Continued.

Chains	
22.00	Bottom of hollow, 125 ft. below mesa, course N. 20° E.; ascend .
40.10	Set a sandstone, 20x8x8 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
43.50	Top of ascent, 200 ft. above hollow, bears N. and S.; thence across rolling mesa.
80.20	The cor. or secs. 21, 22, 27 and 28. Land, mountainous and rolling mesa. Soil, sandy and clay loam; 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.20 chs.
<hr/>	
	N. 0° 02' W., bet. secs. 21 and 22. Over rolling mesa; through dense undergrowth:
36.00	Leave mesa, bears E. and W.; descend .
39.75	Bottom of hollow, 50 ft. below mesa, course N. E.; ascend .
40.00	Set a sandstone, 24x8x4 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
50.00	Top of ridge, 50 ft. above hollow, bears E. and W.; descend .
62.00	Bottom of hollow, 125 ft. below ridge, course N. E.; ascend .
65.00	Top of spur, 40 ft. above hollow, bears E. and W.; descend .
73.00	Bottom of hollow, 50 ft. below spur, course N. W.; ascend .
74.50	Top of spur, 40 ft. above hollow, bears E. and W.; descend .

Subdivision of T.11 S. R.19 E.-Continued.

Chains	
76.50	Bottom of hollow, 60 ft. below spur, course N.E.; ascend.
80.00	Top of ridge, 75 ft. above hollow, bears N.E. and S.W. Set a sandstone, 20x8x8 ins., 15 ins. in the ground, for cor. of secs. 15, 16, 21, and 22, marked 11 S. on N.E. and 19 E. on S.E. faces; with 3 notches on E. and 3 notches on S. edges; and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable. Land, mountainous and rolling mesa. Soil, sandy and gravelly; 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	N. 89° 58' E., on a random line bet. secs. 15 and 22.
40.00	Set temp. $\frac{1}{2}$ sec. cor.
80.06	Intersect N. and S. line, 5 lks. S. of cor. of secs. 14, 15, 22, and 23. Thence we run S. 89° 56' W., on a true line bet. secs. 15 and 22. Over rolling mesa; through dense undergrowth.
30.00	Leave mesa, bears N. and S.; descend.
40.03	Bottom of hollow, 100 ft. below mesa, course N. 30° W. Set a sandstone, 16x7x6 ins., 11 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor. Pits impracticable. Ascend.
57.50	Top of ridge, 100 ft. above hollow, bears N. and S.; descend.
65.00	Bottom of hollow, 85 ft. below ridge, course N. 20° E.; ascend.
67.50	Top of ridge, 50 ft. above hollow, bears N. and S. Des-

Subdivision of T.11 S., R.19 E.-Continued.

Chains

72.00 Bottom of hollow, 75 ft. below ridge, course N.; ascend .

- 80.06 The cor. of secs. 15, 16, 21, and 22.

Land, mountainous and rolling mesa.

Soil, sandy and gravelly loam; 3rd rate .

No timber.

Undergrowth, sage brush and shadscales.

Good grass for grazing.

Mountainous land, or land covered with dense under-growth, 80.06 chs.

November 6, 1901.

✓ November 7, 1901: At 4 h 12 m a.m., l.m.t., we observe Polaris at western elongation, in accordance with the Manual, at the cor. or secs. 15, 16, 21, and 22, latitude $39^{\circ} 51' N.$, longitude $109^{\circ} 40' W.$, and mark a point in the line thus determined by a tack driven in a wooden plug, set in the ground, 5.00 chs. N. of the cor.

At 6 h 30 m a.m., l.m.t., we lay off the azimuth of Polaris $1^{\circ} 35.6'$ to the east, and mark the true meridian thus determined, by cutting a small groove in a stone firmly set in the ground, 5.00 chs. N. of the cor.; the magnetic bearing of said true meridian is $16^{\circ} 17' W.$, which reduced by the table page 100 of the Manual gives the mean mag. decl. $16^{\circ} 15' E.$

At 8 h 0 m a.m., l.m.t., we set off $39^{\circ} 51' N.$, on the lat. arc; $16^{\circ} 9' S.$, on the decl. arc; and mark the true meridian determined with the solar, by a cross on the stone already set 5.00 chs. N. of the cor.; this mark falls 0.22 ins. west of the true meridian established by Polaris observation; therefore we conclude that the adjustments of the instruments are satisfactory.

Thence we run

$11.0^{\circ} 02' W.$, bet. secs. 15 and 16.

Over mountainous land; through dense undergrowth; descend .

Subdivision or T.11 S., R.19 E.-Continued.

Chains	
5.50	Bottom of hollow, 60 ft. below sec.cor., course N.30°E.; ascend .
11.00	Top of ridge, 70 ft. above hollow, bears N.60°E. and S. 60°W.; descend .
21.00	Bottom of hollow, 75 ft. below ridge, course N.E.; ascend .
40.00	Set a sandstone, 16x10x4 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable .
52.00	Top of ridge, 80 ft. above hollow, bears N.E. and S.W.; descend .
60.00	Bottom of hollow, 60 ft. below ridge, course E.; ascend .
74.00	Top of ridge, 70 ft. above hollow, bears E. and W.; descend .
80.00	Bottom of hollow, 100 ft. below ridge, course N.20°E.; Set a sandstone, 24x8x5 ins., 18 ins. in the ground, for cor. of secs. 9, 10, 15, and 16, marked with 4 notches on S. and 3 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable .
	Land, mountainous.
	Soil, sandy and gravelly loam ; 3rd rate.
	No timber.
	Undergrowth, sage brush and shadscales.
	Good grass for grazing.
	Mountainous land, or land covered with dense under-growth, 80.00 chs.

N.89° 56'E., on a random line betsecs.10 and 15.

- 40.00 Set temp. $\frac{1}{4}$ sec.cor.
- 80.04 Intersect N. and S.line, 7 lks.N. of the cor.or secs. 10,11,14, and 15.
- Thence we run
 ✓
 S.89° 59'W., on a true line betsecs.10 and 15.

Subdivision of T.11 S., R.19 E.-Continued.

Chains	Over rolling mesa; through dense undergrowth.
40.02	Set a sandstone, 18x9x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
52.00	Leave mesa, bears N. and S.; descend .
63.50	Bottom of hollow, 150 ft. below mesa, course N. 20° W.; ascend .
72.00	Top of ridge, 150 ft. above hollow, bears N.E. and S.W.; descend .
80.04	The cor.of secs.9,10,15, and 16. Land, mountainous and rolling mesa. Soil, sandy and gravelly; 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.04 chs.

N. $0^{\circ}02'$ W., betsecs.9 and 10.

Over mountainous land; through dense undergrowth; ascend .
15.00 Top of ridge, 150 ft. above sec.cor., bears N.E. and S.W. Descend .
35.00 Bottom of hollow, 200 ft. below ridge, course N.E.; ascend .
40.00 Top of ridge, 50 ft. above hollow, bears N.W. and S.E. Set a sandstone, 24x12x4 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Descend .
57.50 Bottom of hollow, 150 ft. below ridge, course N. 30° W.; ascend gradually .
80.00 Set a sandstone, 24x8x5 ins., 18 ins. in the ground, for

Subdivision of T 11 S R 19 E -Continued

Chains	cor.of secs.3,4,9, and 10,marked with 5 notches on S. and 3 notches on E.edges;and raise a mound of stone, 2 ft.base, $1\frac{1}{2}$ ft.high,W.of cor.Pits impracticable. Land,mountainous . Soil,sandy and gravelly;3rd rate. No timber .. Undergrowth,sage brush and shadscales. Good grass for grazing. Mountainous land,or land covered with dense under-growth,80.00 chs.
	N.89° 59' E.,on a random line betsecs.3 and 10.
40.00	Set temp. $\frac{1}{4}$ sec.cor.
80.00	Intersect N.and S.line at the cor.of secs.2,3,10, and 11. Thence we run S.89° 59' W.,on a true line betsecs.3 and 10. Over rolling mesa;through dense undergrowth.
53.00	Leave mesa,bears N.30° E.and S.30° W.;ascend .
37.50	Top of spur,50 ft.above mesa;bears N.25° E.and S.25° W. Descend .
40.00	Bottom of hollow,100 ft.below spur,course N.30° E.. Set a limestone,18x8x4 ins.,12 ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ on N.face;and raise a mound of stone,2 ft.base, $1\frac{1}{2}$ ft.high,N.of cor.Pits impracticable . Ascend .
60.00	Top of ridge,100 ft.above hollow,bears N.and S.10° E.. descend .
80.00	The cor.of secs.3,4,9, and 10. Land,mountainous and rolling mesa. Soil,sandy and gravelly loam;3rd rate. No timber.. Undergrowth,sage brush and shadscales. Good grass for grazing.

Subdivision of T. 11 S., R. 19 E.-Continued.

Chains Mountainous land, or land covered with dense undergrowth, \$0.00 chs.

For reasons already explained we run

N. 0°02' W., on a true line bet. secs. 3 and 4.

Over mountainous land, through scattering undergrowth; descend gradually.

7.50 Bottom of hollow, 50 ft. below sec. cor., course N. 15° E.
Ascend.

23.00 Top of ridge, 150 ft. above hollow, bears N.E. and S.W.;
descend.

28.00 Bottom of hollow, 150 ft. below ridge, course N. 80° E.;
ascend.

37.50 Top of ridge, 150 ft. above hollow, bears N. 80° E. and
S. 80° W.; descend.

40.00 Set a sandstone, 18x6x5 ins., 12 ins. in the ground, for
sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of
stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

46.00 Bottom of hollow, 120 ft. below ridge, course N. 80° E.;
ascend.

58.00 Top of ridge, 120 ft. above hollow, bears N. 80° E. and S.
80° W.; descend.

77.06 Intersect the Second Standard Parallel South 2.23 chs.
N. 80° 50' W. of the standard $\frac{1}{2}$ sec. cor. on south side
of sec. 33, T. 10 S., R. 19 E., heretofore described.

Set a sandstone, 18x9x8 ins., 12 ins. in the ground, for
closing cor. of secs. 3 and 4, marked C.C. on S., with
3 grooves on E. and 3 grooves on W. faces; and raise a
mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, S. of cor. Pits
impracticable.

Land, mountainous.

Soil, sandy and gravelly; 3rd rate.

No timber.

Undergrowth, sage brush and shadscales.

Good grass for grazing.

Subdivision of T.11 S., R.19 E.-Continued.

Chains	Mountainous land, 77.96 chs. November 7, 1901: At this cor. we set off $16^{\circ}14' S.$, on the decl. arc; and at 0 h 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $39^{\circ}54' N.$
	From the cor. of secs. 4, 5, 32, and 33, on S. bdy. of Tp., heretofore described, We run $N.0^{\circ}03' W.$, bet. secs. 32 and 33. Over mountainous land; through dense undergrowth; ascend.
19.00	Top of ascent, 100 ft. above sec. cor., bears N. $15^{\circ} W.$ and S.E.; thence over rolling mesa.
40.00	Set a sandstone, 24x16x6 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
80.00	Set a sandstone, 18x11x5 ins., 12 ins. in the ground, for cor. of secs. 28, 29, 32, and 33, marked with 1 notch on S. and 4 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous and rolling mesa. Soil, sandy and clay loam; 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	East, on a random line bet. secs. 28 and 33. 40.00 Set temp. $\frac{1}{4}$ sec. cor. 80.00 Intersect N. and S. line, at the cor. of secs. 27, 28, 33, and 34, Thence we run

Subdivision of T.11 S., R.19 E.-Continued.

Chains	West, on a true line bet. secs. 28 and 33. Over mountainous land; through dense undergrowth; ascend
7.00	Top of ridge, 50 ft. above sec. cor., bears N. and S.; descend .
21.00	Bottom of hollow, 50 ft. below ridge, course N. 20° E.; ascend .
29.00	Top of ascent, 150 ft. above hollow, bears N. and S.; thence over rolling mesa.
40.00	Set a sandstone, 24x10x5 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable .
80.00	The cor. of secs. 28, 29, 32, and 33. Land, mountainous and rolling mesa. Soil, sandy and gravelly loam; 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.

	N. 0° 03' W., bet. secs. 28 and 29. Over rolling mesa; through dense undergrowth.
40.00	Set a sandstone, 24x10x5 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
80.00	Set a quartzite stone, 20x7x7 ins., 15 ins. in the ground, for cor. of secs. 20, 21, 28, and 29, marked with 2 notches on S. and 4 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, rolling mesa. Soil, sandy loam; 3rd rate. No timber.

Subdivision of T.11 S., R.19 E.-Continued

Chains	Undergrowth, sage brush and shadscales. Good grass for grazing. Land covered with dense undergrowth, 80.00 chs.
	November 7, 1901.
	November 8, 1901. At 8 h. 0 m a.m., l.m.t., we set off. $39^{\circ} 54' N.$, on the lat. arc; $16^{\circ} 27' S.$, on the decl. arc; and determine a true meridian with the solar, at the cor. of secs. 20, 21, 28, and 29. Thence we run East, on a random line bet. secs. 21 and 28.
40.00	Set temp. $\frac{1}{2}$ sec. cor.
79.80	Intersect N. and S. line, 5 lks. N. of the cor. of secs. 21, 22, 27, and 28. Thence we run $N. 89^{\circ} 58' W.$, on a true line bet. secs. 21 and 28. Over rolling mesa; through dense undergrowth.
39.90	Set a limestone, 18x8x4 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
79.80	The cor. of secs. 20, 21, 28, and 29. Land, rolling mesa. Soil, sandy and gravelly; 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Land covered with dense undergrowth, 79.80 chs.
	<hr/> $N. 0^{\circ} 03' W.$, bet. secs. 20 and 21. Over rolling mesa; through dense undergrowth.
40.00	Set a sandstone, 18x7x5 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

Subdivision of T. 77 S. R. 79 E.—Continued

Chains able.

75.00 Trail, bears N.W. and S.E.

80.00 Set a limestone, 20x12x4 ins., 15 ins. in the ground, for cor. of secs. 16, 17, 20, and 21, marked with 3 notches on S. and 4 notches on E. edges; and raise a mound of stone 2 ft. base, 1½ ft. high, N. of cor. Pits impracticable.

Land, rolling mesa.

Soil, sandy loam; 3rd rate.

No timber.

Undergrowth, sage brush and shadscales.

Good grass for grazing.

Land covered with dense undergrowth, 80.00 chs.

S. 89° 58' E., on a random line bet. secs. 16 and 21.

40.00 Set temp. $\frac{1}{2}$ sec. cor.

79.96 Intersect N. and S. line, 5 lks. N. of the cor. of secs. 15, 16, 21, and 22.

Thence we run

N. 89° 56' W., on a true line bet. secs. 16 and 21.

Over mountainous land; through dense undergrowth; descend.

3.50 Bottom of hollow, 60 ft. below sec. cor., course N.E.; ascend.

20.00 Top of ridge, 100 ft. above hollow, bears N. 80° E. and S. 80° W.; descend.

30.00 Bottom of hollow, 75 ft. below ridge, course N.; ascend.

38.50 Top of ascent, 80 ft. above hollow, bears N. and S.; thence over rolling mesa.

39.98 Set a sandstone, 18x10x8 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor. Pits impracticable.

79.96 The cor. of secs. 16, 17, 20, and 21.

Land, mountainous and rolling mesa.

Soil, sandy loam and gravelly; 3rd rate.

Subdivision of T. 11 S., R. 19 E., -Continued.

Chains	No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.96 chs.
	N. 0° 03' W., bet. secs. 16 and 17. Over rolling mesa; through dense undergrowth.
40.00	Set a limestone, 24x5x5 ins., 18 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
50.00	Leave mesa, bears N. 20° E. and S. 20° W.; thence descend.
55.50	Bottom of hollow, 125 ft. below mesa, course N. 20° E.; ascend.
59.00	Top of ascent, 125 ft. above hollow, bears N. 20° E. and S. 20° W.; thence over rolling mesa.
80.00	Set a sandstone, 18x6x4 ins., 12 ins. in the ground, for cor. of secs. 8, 9, 16, and 17, marked with 4 notches on S. and 4 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	Land, mountainous and rolling mesa. Soil, sandy and clay loam; 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	S. 89° 56' E., on a random line bet. secs. 9 and 16.
40.00	Set temp. $\frac{1}{2}$ sec. cor.,
80.04	Intersect N. and S. line, 12 lks. S. of the cor. of secs. 9, 10, 15, and 16. Thence we run

Subdivision of T.11 S., R.19 E.-Continued.

Chains	S. $89^{\circ}59'W.$, on a true line, bet. secs. 9 and 16. Over mountainous land; through dense undergrowth; ascend.
5.00	Top of ascent, 60 ft. above sec. cor., bears N. and S.; thence over rolling mesa.
20.00	Leave mesa, bears N. $20^{\circ}W.$ and S. $20^{\circ}E.$; descend.
22.00	Bottom of hollow, 50 ft. below mesa, course N. $20^{\circ}W.$; ascend.
27.00	Top of ridge, 75 ft. above hollow, bears N. and S.; descend.
40.02	Set a sandstone, 24x8x5 ins., 18 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
60.00	Bottom of hollow, 85 ft. below spur, course N. $20^{\circ}E.$; ascend.
70.00	Top of ascent, 75 ft. above hollow, bears N. $20^{\circ}E.$ and S. $20^{\circ}W.$; thence over rolling mesa.
80.04	The cor. of secs. 8, 9, 16, and 17. Land, mountainous and rolling mesa. Soil, sandy and gravelly; 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.04 chs.

N. $0^{\circ}03'W.$, bet. secs. 8 and 9.

Over rolling mesa; through dense undergrowth.
40.00 Set a limestone, 16x7x5 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
50.00 Leave mesa, bears N. $60^{\circ}E.$ and S. $60^{\circ}W.$; descend.
54.30 Bottom of hollow, 50 ft. below mesa, course N. $20^{\circ}E.$; as-

Subdivision of T.11 S..R.19 E.-Conitnued.

Chains	cend .
59.00	Top of ridge, 80 ft. above hollow, bears N.E. and S.W.; descend .
64.00	Bottom of hollow, 85 ft. below ridge, course N.E.; ascend .
72.50	Top of ascent, 75 ft. above hollow, bears N.E. and S.W.; thence over rolling mesa.
80.00	Set a sandstone, 24x6x6 ins., 18 ins. in the ground, for cor. of secs. 4, 5, 8, and 9, marked with 5 notches on S. and 4 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous and rolling mesa.
	Soil, sandy and gravelly loam; 2nd and 3rd rate.
	No timber.
	Undergrowth, sage brush and shadscales.
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	November 8, 1901: At this cor. we set off $16^{\circ} 31' S.$, on the decl. arc; and at 0 h 2 m p.m., l.m.t., observe the sun on the meridian the resulting lat. is $39^{\circ} 53' N.$.
	<hr/>
	N. $89^{\circ} 59' E.$, on a random line bet. secs. 4 and 9.
40.00	Set temp. π sec.cor.
80.00	Intersect N. and S.. line, at the cor. of secs. 3, 4, 8, and 10.
	Thence we run
	S. $89^{\circ} 59' W.$, on a true line bet. secs. 4 and 9.
	Over mountainous land; through dense undergrowth; descend .
2.50	Bottom of hollow, 25 ft. below sec.cor., bourse N.; ascend .
15.40	Top of ridge, 80 ft. above hollow, bears N. and S.; descend :
22.00	Bottom of hollow, 50 ft. below ridge, course N. $20^{\circ} E.$;

Subdivision of T.11 S., R.19 E.-Continued.

Chains	ascend .
28.00	Top of ascent, 100 ft. above hollow, bears N. and S.; thence over rolling mesa.
40.00	Set a sandstone, 24x8x4 ins., 18 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N.of cor. Pits impracticable.
51.50	Leave mesa, bears N.W. and S.E.; descend .
54.50	Bottom of hollow, 75 ft. below mesa, course N.10°W.; ascend
63.00	Ridge, 75 ft. above hollow, bears N. and S.; descend .
68.50	Bottom of hollow, 75 ft. below ridge, course N.; ascend .
75.50	Top of ascent, 75 ft. above hollow, bears N.10°E. and S. 10°W.; thence over rolling mesa.
80.00	The cor.of secs. 4,5,6, and 9. Land, mountainous and rolling mesa. Soil, sandy and clay loam; 2nd and 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.

For reasons already explained we run

N.0°03'W., on a true line bet.secs. 4 and 5.

Over rolling mesa; through dense undergrowth.

40.00	Set a sandstone, 24x8x4 ins., 18 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
58.75	Leave mesa, bears N.E. and S.W.; descend .
73.00	Bottom of hollow, 150 ft. below mesa, course N.30°E.; ascend .
77.98	Intersect the Second Standard Parallel South, 1.20 chs. S.89°56'W., of the standard $\frac{1}{2}$ sec.cor., on south

Subdivision of T.11 S., R.19 E.-Continued.

Chains side sec.32,T.10 S.,R.19 E., heretofore described.
Set a limestone, 20x8x6 ins., 15 ins. in the ground, for closing cor. of secs. 4 and 5, marked C.C. on S., with 4 grooves on E. and 2 grooves on W. faces; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, S. of cor. Pits impracticable.
Land, mountainous and rolling mesa.
Soil, sandy and clay loam and gravelly; 2nd and 3rd rate.
No timber.
Undergrowth, sage brush and shadscales.
Good grass for grazing.
Mountainous land, or, land covered with dense undergrowth, 77.28 chs.

From the cor. of secs. 5, 6, 31, and 32, on S. bdy. of Tp., heretofore described.

To run .

N. 03' W., bet. secs. 31 and 32.

Over mountainous land; through dense undergrowth. X

40.00 Set a limestone, 18x6x4 ins., 12 ins. in the ground, for cor. of sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

80.00 Set a limestone, 18x10x4 ins., 12 ins. in the ground, for cor. of secs. 29, 30, 31, and 32, marked with 1 notches on S. and 5 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable .

Land, rolling mesa.

Soil, sandy and gravelly loam; 2nd and 3rd rate.

No timber.

Undergrowth, sage brush and shadscales.

Good grass for grazing.

Land covered with dense undergrowth, 80.00 chs.

Subdivision of T.11 S., R.19 E. -Continued

- | | |
|--------|--|
| Chains | East, on a random line bet. secs. 29 and 32. |
| 40.00 | Set temp. $\frac{1}{4}$ sec. cor. |
| 79.96 | Intersect N. and S. line, 12 lks. S. of the cor. of secs. 28, 29, 32, and 33.

Thence we run
✓
S. $89^{\circ} 55' W.$, on a true line bet. secs. 29 and 32.

Over rolling mesa; through dense undergrowth. |
| 7.00 | Leave mesa, bears N. $10^{\circ} W.$ and S.; descend gradually. |
| 25.00 | Foot of descent, 500 ft. below mesa, bears N. W. and S.; thence over rolling mesa. |
| 59.98 | Set a quartzite stone, 18x8x6 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable. |
| 79.96 | The cor. of secs. 29, 30, 31, and 32.

Land, mountainous and rolling mesa.

Soil, sandy loam and gravelly; 3rd rate.

No timber.

Undergrowth, sage brush and shadscales.

Good grass for grazing.

Mountainous land, or land covered with dense undergrowth, 79.96 chs. |
| <hr/> | |
| | West, on a random line bet. secs. 30 and 31. |
| 40.00 | Set temp. $\frac{1}{4}$ sec. cor. |
| 80.00 | Intersect W. bdy. of Tp., at the cor. of secs. 25, 30, 31, and 36, heretofore described.

Thence we run
✓
East, on a true line bet. secs. 30 and 31.

Over mountainous land, through scattering undergrowth; ascend. |
| 11.00 | Top of ridge, 100 ft. above sec. cor., bears N. and S.; descend. |
| 35.00 | Foot of descent, 100 ft. below ridge, bears N. $25^{\circ} E.$ and S. $25^{\circ} W.$; thence over rolling mesa. |

Subdivision of T. 11 S., R. 19 E. -Continued.

Chains	Enter dense undergrowth, bears N. 25° E. and S. 25° W.
40.00	Set a limestone, 18x10x4 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
80.00	The cor. of secs. 29, 30, 31, and 32. Land, mountainous and rolling mesa. Soil, sandy loam and gravelly; 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	<hr/>
	N. 0° 05' W., bet. secs. 29 and 30. Over rolling mesa; through dense undergrowth.
4.00	Leave mesa, bears E. and W.; ascend mountain.
26.50	Top of ridge, 350 ft. above sec. cor., bears E. and W.; descend .
40.00	Set a quartzite stone, 18x8x8 ihs., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
80.00	Set a sandstone, 20x10x5 ins., 15 ins. in the ground, for cor. of secs. 19, 20, 29, and 30, marked with 2 notches on S. and 5 notches on E. edges; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous and rolling mesa. Soil, sandy and gravelly; 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.

November 8, 1901.

Subdivision of T. 11 S., R. 19 E.—Continued.

Chairs

November 9, 1901. At 8 h 2 m a.m., l.m.t., we set off $39^{\circ} 50' N.$, on the lat. arc; $16^{\circ} 44' S.$, on the decl. arc; and determine a true meridian, with the solar, at the cor. of secs. 19, 20, 29, and 30.

Thence we run

$N. 89^{\circ} 55' E.$, on a random line bet. secs. 20 and 29.

40.00 Set temp. $\frac{1}{2}$ sec. cor.

79.90 Intersect N. and S. line, 12 lks. S. of the cor. of secs. 20, 21, 28, and 29.

Thence we run

$S. 89^{\circ} 50' W.$, on a true line bet. secs. 20 and 29.

Over rolling mesa; through dense undergrowth.

39.95 Set a limestone, 18x7x4 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.

63.00 Leave mesa, bears N. and S.; descend.

73.00 Bottom of hollow, 200 ft. below mesa, course $N. 10^{\circ} W.$; ascend.

79.90 The cor. of secs. 19, 20, 29, and 30.

Land, mountainous and rolling mesa.

Soil, sandy and gravelly loam; 3rd rate.

No timber.

Undergrowth, sage brush and shadscales.

Good grass for grazing.

Mountainous land, or land covered with dense undergrowth, 79.90 chs.

West, on a random line bet. secs. 19 and 30.

40.00 Set temp. $\frac{1}{2}$ sec. cor.

80.02 Intersect W. bdy. of Tp., 7 lks. N. of the cor. of secs. 19, 24, 25, and 30, heretofore described.

Thence we run

Subdivision of T.11 S., R.19 E.-Continued.

Chains	N. $89^{\circ} 57' W.$, on a true line bet. secs. 19 and 30.
	Over mountainous land; through dense undergrowth; ascend.
36.20	Top of ridge, 200 ft. above sec.cor., bears N. and S.; descend.
40.02	Set a sandstone, 20x8x5 ins., 15 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
64.00	Bottom of hollow, 150 ft. below ridge, course N. $10^{\circ} E.$; ascend.
76.50	Top of ridge, 150 ft. above hollow, bears N. and S. $40^{\circ} W.$; descend.
80.02	The cor.of secs. 19, 20, 29, and 30. Land, mountainous. Soil, sandy and gravelly; 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.02 chs.
	N. $0^{\circ} 03' W.$, bet. secs. 19 and 20. Over mountainous land; through scattering undergrowth; descend.
10.00	Bottom of hollow, 250 ft. below sec.cor., course N.W.; ascend.
39.00	Top of ridge, 250 ft. above hollow, bears N. $60^{\circ} W.$ and S. $60^{\circ} E.$; descend.
40.00	Set a sandstone, 18x10x8 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
60.00	Bottom of hollow, 150 ft. below ridge, course N. $80^{\circ} W.$; ascend.
80.00	Top of ridge, 200 ft. above hollow, bears N. $50^{\circ} W.$ and

Subdivision of T. 11 S., R. 19 E. -Continued.

Chains	S. 50° E. Set a sandstone, 18x9x6 ins., 12 ins. in the ground, for cor. of secs. 17, 18, 19, and 20, marked with 3 notches on S. and 5 notches on E. edges; and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor. Pits impracticable. Land, mountainous. Soil, sandy and gravelly; 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, 80.00 chs.
40.00	N. 89° 50' E., on a random line bet. secs. 17 and 20. Set temp. $\frac{1}{4}$ sec. cor.
79.94	Intersect N. and S. line, at the cor. of secs. 16, 17, 20, and 21. Thence we run S. 89° 50' W., on a true line bet. secs. 17 and 20. Over rolling mesa; through dense undergrowth.
2.50	Trail, bears N. 60° W. and S. 45° E.
39.97	Set a sandstone, 18x9x7 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor. Pits impracticable.
41.40	Leave mesa, bears N. and S.; descend.
47.50	Bottom or hollow, 125 ft. below mesa, course N.; ascend.
54.00	Top of ridge, 200 ft. above hollow, bears N. and S.; descend.
69.50	Bottom of hollow, 400 ft. below ridge, course N.; ascend.
74.00	Top of ridge, 275 ft. above hollow, bears N. and S.; descend.
77.00	Ascend.
79.94	The cor. of secs. 17, 18, 19, and 20. Land, mountainous and rolling mesa. Soil, sandy loam and gravelly; 2nd and 3rd rate. No timber. Undergrowth, sage brush and shadscales.

Subdivision of T.11 S. R.19 E.-Continued

Chains	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth, 79.94 chs.
	S.89° 57'W., on a random line bet. secs. 18 and 19.
40.00	Set temp. $\frac{1}{4}$ sec.cor..
80.06	Intersect W.bdy. of Tp., 2 lks. N. of the cor. of secs. 15, 18, 19, and 24, heretofore described. Thence we run N.89° 56'E., on a true line bet. secs. 18 and 19. Over mountainous land, through scattering undergrowth; ascend.
16.50	Top of ridge, 200 ft. above sec.cor., bears N.15°W. and S.15°E.; descend.
40.06	Set a limestone, 15x7x4 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
56.50	Bottom of hollow, 200 ft. below ridge, course N.65°W.; ascend.
80.06	The cor. of secs. 17, 18, 19, and 20. Land, mountainous. Soil, sandy loam and gravelly; 2nd and 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, 80.06 chs.
	November 9, 1901: At the noon hour the sky is overcast and solar observations are impossible.
28.50	N.0° 03'W., bet. secs. 17 and 18. Over mountainous land, through scattering undergrowth; descend. Trail, bears N.47°W. and S.47°E., in bottom of hollow, -250 ft. below sec.cor., course N.47°W.; ascend.

Subdivision of T.11 S., R.19 E.-Continued.

Chains	
40.00	Set a sandstone, 24x6x4 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
63.50	Top of ridge, 175 ft. above hollow, bears N. 70° W. and S. 70° E.; descend .
80.00	Set a sandstone, 26x10x5 ins., 27 ins. in the ground, for cor.of secs. 7, 8, 17, and 18, marked with 4 notches on S.and 5 notches on E.edges; and raise a mound of stone, $\frac{3}{4}$ ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
	Land, mountainous.
	Soil, sandy and gravelly; 3rd rate.
	No timber.
	Undergrowth, sage brush and shadscales.
	Good grass for grazing.
	Mountainous land, 80.00 chs.
	N. $89^{\circ} 50' E.$, on a random line bet.secs. 8 and 17.
40.00	Set temp. $\frac{1}{4}$ sec.cor.
60.00	Intersect N.and S.line, 14 lks.N.of the cor.of secs. 8, 9, 16, and 17.
	Thence we run
	S. $89^{\circ} 56' W.$, on a true line bet.secs. 8 and 17.
	Over rolling mesa; through dense undergrowth;
40.00	Set a sandstone, 24x6x4 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable.
42.50	leave mesa, bears N." and S.; descend .
80.00	The cor.of secs. 7, 8, 17, and 18.
	Land, mountainous and rolling mesa.
	Soil, sandy and gravelly; 3rd rate.
	No timber.
	Undergrowth, sage brush and shadscales.

Subdivision of T.11 S., R.19 E.-Continued.

Chains	Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	S.89° 56' W., on a random line bet. secs. 7 and 18.
40.00	Set temp. $\frac{1}{4}$ sec.cor.
79.80	Intersect W.bdy.of Tp., 13 lks.S. of the cor.of secs. 7, 12, 13, and 18, heretofore described. Thence we run East, on a true line bet. secs. 7 and 18. Over mountainous land; through scattering undergrowth; ascend ..
39.50	Top of ridge, 300 ft. above sec.cor., bears N.70° W. and S.70° E.; descend .
39.80	Set a sandstone, 16x8x7 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
56.00	Bottom of hollow, 200 ft. below ridge, course N.W.; ascend .
79.80	The cor.of secs. 7, 8, 17, and 18. Land, mountainous. Soil, sandy and gravelly ; 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, 79.80 chs.
	N.0° 03' W., bet. secs. 7 and 8. Over mountainous land; through dense undergrowth; descend .
15.00	Bottom of hollow, 150 ft. below sec.cor., course W.; ascend .
30.00	Top of ascent, 150 ft. above hollow, bears N.50° W. and S.50° E.; thence over rolling mesa.

Subdivision of T.11 S., R.19 E., -Continued.

Chains	
40.00	Set a sandstone, 20x8x5 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft.base, $1\frac{1}{2}$ ft.high, W.of cor. Pits impracticable.
80.00	Set a sandstone, 18x6x4 ins., 12 ins. in the ground, for cor.of secs. 5, 6, 7, and 8, marked with 5 notches on S. and 5 notches on E.edges; and raise a mound of stone, 2 ft.base, $1\frac{1}{2}$ ft.high, W.of cor. Pits impracticable. Land, mountainous and rolling mesa. Soil, sandy and gravelly; 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	N. $89^{\circ} 56' E.$, on a random line bet.secs. 5 and 8.
40.00	Set temp. $\frac{1}{2}$ sec.cor.
80.08	Intersect N.and S.line, at the cor.of secs. 4, 5, 8, and 9. thence we run \downarrow S. $89^{\circ} 56' W.$, on a true line bet.secs. 5 and 8. Over rolling mesa; through dense undergrowth.
40.04	Set a sandstone, 18x12x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft.base, $1\frac{1}{2}$ ft.high, N.of cor. Pits impracticable.
80.08	The.cor.of secs. 5, 6, 7, and 8. Land, rolling mesa. Soil, sandy and gravelly; 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Land covered with dense undergrowth, 80.08 chs.

Subdivision of T.11 S., R.19 E.-Continued.

Chains	West, on a random line bet. secs. 6 and 7...
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.90	Intersect W. bdy. of Tp., at the cor. of secs. 1, 6, 7, and 12, heretofore described. Thence we run East, on a true line bet. secs. 6 and 7. Over mountainous land; through scattering undergrowth; ascend.
39.90	Set a sandstone, 24x8x4 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
45.00	Top of ascent, 75 ft. above $\frac{1}{4}$ sec. cor., bears N. 20° W. and S. 20° E.; thence over rolling mesa. Enter dense undergrowth, bears N. 20° W. and S. 20° E.
79.90	The cor. of secs. 5, 6, 7, and 8. Land, mountainous and rolling mesa. Soil, sandy and gravelly loam; 3rd rate. No timber. Undergrowth, sage brush and shadscales. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.90 chs.
	<hr/> For reasons already explained we run N. 0° 03' W., on a true line bet. secs. 5 and 6. Over rolling mesa; through dense undergrowth.
35.00	Leave mesa, bears E. and W.; descend.
40.00	Set a sandstone, 18x11x5 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
50.50	Bottom of hollow, 150 ft. below mesa, course N. 20° E.; ascend.
65.00	Top of ridge, 100 ft. above hollow, bears N. 30° E. and S.

Date: Dec. 1, 1861.

24.00 billion ft. water, 100 ft. below place, source N.E. 2d sec.,

dated.

Water intersected the old timber parallel South 2.00 deg.,
west of the standard L. marker on S. 3dly, sec. 31, T. 10
N., R. 19 E., but no others were described.

Cut a granite stone, 24x12x4 ins., 16 ins. in the ground.

For closing corner of sec. 5 and 6, marked C.C. on S., with
2 grooves on E. and 1 groove on W. faces; and raise a
mass of stone, 2 ft. base, 11 ft. high, S. of cor. It's
impracticable.

Land, mountainous and rolling meadows.

Soil, sandy and gravelly; 3rd rate.

No timber.

Undergrowth, sage brush and chadscales.

Good grass for grazing.

Mountainous land, or land covered with dense under-
growth, 24.00 etc.

November 9, 1861.

General Description:

The township is a desert mountainous country, containing an extensive wash in the N.E. corner and another in the western part of the township.

The soil is mostly sandy and gravelly; 3rd rate.

There is no water in the township at this time of year.

The township affords good grazing in the winter and early spring months when snow is on the ground.

There are no settlers in the township.

There are no mineral in the township.

There is no timber in the township.

John R. Stewart
John R. Stewart
Surveyor.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Scott P. Stewart and John R. Stewart, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the subdivision of J.15 S., R.20 E.; J.15 S., R.19 E.; J.14 S., R.20 E.; J.14 S., R.19 E.; J.13 S., R.20 E.; J.13 S., R.19 E.; J.12 S., R.20 E.; J.12 S., R.19 E.; J.11 S., R.20 E.; and J.11 S., R.19 E., showing the respective capacities in which they acted:

Andy J. Stewart	Edwin A. Peay	, Chainman.
Voseo Call	Hugh Conover	, Chainman.
Clarence S. Jarvis		, Moundman.
John J. Harding		, Moundman.
George W. Elkins		, Axman.
Harry Burton		, Axman.
Harvey R. Booth		, Flagman.
Gilbert Burr		, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Scott P. Stewart and John R. Stewart, United States Deputy Surveyor, in surveying all those parts or portions of the subdivision of J.15 S., R.20 E.; J.15 S., R.19 E.; J.14 S., R.20 E.; J.14 S., R.19 E.; J.13 S., R.20 E.; J.13 S., R.19 E.; J.12 S., R.20 E.; J.12 S., R.19 E.; J.11 S., R.20 E.; and J.11 S., R.19 E.

of the Salt Lake Base and meridian, State of Utah, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for Utah.

Andy J. Stewart	Edwin A. Peay	, Chainman.
Voseo Call	Hugh Conover	, Chainman.
Clarence S. Jarvis		, Moundman.
John J. Harding		, Moundman.
George W. Elkins		, Axman.
Harry Burton		, Axman.
Harvey R. Booth		, Flagman.
Gilbert Burr		, Flagman.

Subscribed and sworn to before me this 20th,

day of November 1903



Andrew J. Stewart Jr.
Notary Public

My commission expires
March 17, 1903.

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

We, Scott P. Stewart and John R. Stewart, United States Deputy Surveyors, solemnly swear that, in pursuance of a contract received from Edward H. And United States Surveyor General for Utah, bearing date of 12th day of April, 1901, we have well, faithfully, and truly, in every proper person and in strict conformity with the instructions furnished by the United States Surveyor General for Utah, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the subdivision of T. 15 S., R. 15 S., R. 19 E.; T. 14 S., R. 20 E.; T. 14 S., R. 19 E.; T. 13 S., R. 21 S., R. 19 E.; T. 12 S., R. 20 E.; T. 12 S., R. 19 E.; T. 11 S., R. 21 and T. 11 S., R. 19 E.

and meridian, in the State of Utah, which are represented in work of H. L. P. R. U. X. foregoing field notes as having been surveyed by me, and under my direction; and do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for Utah, and in the specific manner described in the field notes, and the foregoing are the original field notes of such survey; and should any fraud be detected, we will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Scott P. Stewart John R. Stewart
United States Deputy Surveyors

Subscribed by said Scott P. Stewart & John R. Stewart, and sworn to before me }
this 30th day of June, 1901. }

SEAL
OCT 1901

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, February 1903.

The foregoing field notes of the survey of the subdivision of the Township 11 South Range 19 East of the Salt Lake Base Meridian, Utah,

executed by Scott P. Stewart and John R. Stewart, under his contract No. 242, dated April 12, 1901, having critically examined, and the necessary corrections and explanations made, the said field notes, and surveys they describe, are hereby approved.

Edward H. Andrus
United States Surveyor General

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

United States Surveyor General

BLANK

PAGE

BLANK

PAGE

A

3.B.

FIELD NOTES

OF THE SURVEY OF THE

GREEN RIVER GUIDE MERIDIAN

through

Townships No. 20 South

Between Ranges Nos. 20 and 21 East

Of the SALT LAKE BASE AND Meridian,
in the STATE OF UTAH

AS SURVEYED BY

Andrew J. Stewart Jr., United States Deputy Surveyor,
Under his Contract No. 243, dated April 12, 1901,
Survey commenced May 30, 1901,
Survey completed May 30, 1901,

6-151

High - 6.07.00'

NAMES AND DUTIES OF ASSISTANTS.

William Matson	Chairman
Harvey M. Cliff	Chairman
William Andrews	Chairman
Arthur Wilde	Chairman
Omero Marriotti	C. m.
Victor H. Crane	Flagman

INDEX DIAGRAM.

Township _____, *Range* _____

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Meanders Page _____

PRELIMINARY OATHS OF ASSISTANTS.

William Andrews

We, *William Watson*

Arthur Wilde

and *Harvey M. Clark*,

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey

✓ *the Green River Guide Meridian through Dps. 16, 17, 18, 19 and*
between Ranges 20 and 21 E. of the Salt Lake Base Meridian, Utah.

William Watson

, Chainm

Harvey M. Clark

, Chainm

Subscribed and sworn to before me this

27th } *of May, 1901, A.D.*

day of

May 1901, A.D.

} *Arthur Wilde*



Hiram D. Thomas

, Notary Pub

We, *William Watson* and *Arthur Wilde*, do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey

✓ *the Green River Guide Meridian through Dps. 16, 17, 18, 19 and*
between Ranges 20 and 21 E. of the Salt Lake Base Meridian, Utah.

Subscribed and sworn to before me this

27th }

day of



May 1901, A.D.

We, *Omero Mariotti*

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners, and other duties, according to instructions given us, to the best of our skill and ability, in the survey

✓ *the Green River Guide Meridian through Dps. 16, 17, 18, 19 and*
between Ranges 20 and 21 E. of the Salt Lake Base Meridian, Utah.

Omero Mariotti

Subscribed and sworn to before me this

27th }

day of



May 1901, A.D.

Hiram D. Thomas

, Notary Pub

I, *Victor D. Cram*, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey

✓ *the Green River Guide Meridian through Dps. 16, 17, 18, 19 and*
between Ranges 20 and 21 E. of the Salt Lake Base Meridian, Utah.

Victor D. Cram

Subscribed and sworn to before me this

27th }

day of



May 1901, A.D.

Hiram D. Thomas

, Notary Pub

Green River Guide Meridian, through Tps. 20 S., between Ranges 20 and 21 E.

Survey commenced May 30, 1901; and executed with a W. & L. E. Gurley light mountain transit, No. 1, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other reading to single minutes of arc; which is also the least count of the latitude and declination arcs.

The instrument was examined, tested on the true meridian, at Salt Lake City, found correct, and was approved by the surveyor general for Utah, on May 29, 1901.

Note: I arrived on the ground too late on the night of May 29, to take a sun observation; therefore for complete test of instrument see notes of the Green River Guide Meridian, through townships No. 20 South between ranges 20 and 21 East, in Book "B."

At the Standard Cor. of Tps. 20 S., Rs. 20 and 21 E.,
latitude $39^{\circ} 02' N.$, longitude $109^{\circ} 41' W.$,

At 2 h 54 m a.m., l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual, and mark a point in the line thus determined on a plug driven in the ground, 5.00 chs. N. of the cor.

At 6 h 30 m a.m., l.m.t., I lay off the azimuth of Polaris $1^{\circ} 34.3$ to the west, and mark the true meridian thus determined, by cutting a small groove in a stone, set in the ground, 5.00 chs. N. of the cor.

At 6 h 57 m a.m., l.m.t., I set off $39^{\circ} 02' N.$, on the lat. arc; $21^{\circ} 45' N.$, on the decl. arc; and mark a point in the true meridian, determined with the solar, by a cross on the stone, already set, 5.00 chs. N. of the cor.; this mark falls 0.35 ins. east of the true meridian established by Polaris observation.

The solar observation by a.m. observation, defines a position for the true meridian $0^{\circ} 18'$

Breen River Guide Meridian, through Tps. 20 S., Rs. 20 and 21 E.-Continued

Chains

east of the true meridian, established by Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bears of the true meridian, at 7 h 30 m a.m., l.m.t., is $15^{\circ} 34.4' W.$, the angle thus determined reduced by the table page 100 of the Manual, gives the mean magnetic declination is $15^{\circ} 30' E.$.

From the Standard cor. of Tps. 20 South Ranges 20 and 21 East, which is a sandstone, $10 \times 14 \times 6$ ins., above ground, firmly set, and marked and witnessed as described by the surveyor general,

I run

North, bet. secs. 31 and 36.

Over mountainous land; through scattering sage and mahogany, undergrowth and scattering cedar and pinon pine timber.

Descend .

5.00 Bottom of hollow, 100 ft. below Tp.cor., course East.

Ascend .

10.40 Top of ridge, 150 ft. above hollow, bears N.E. and S.W.

Descend abruptly.

Difference between measurements of 40.00 chs., by two sets of chainman, is 4 lks., position of middle point

By 1st set 39.98 chs.

By 2nd set 40.02 chs.; the mean of which is

40.00 Set a sandstone, $20 \times 8 \times 4$ ins., 15 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

46.08 Bottom of hollow, 300 ft. below ridge, course $N.70^{\circ} E.$;

River Guide Meridian, through Tps 20 S .Rs.20 and 21 E.-Continued.

- Chains ascend abruptly over broken ground..
- 53.25 Top of ridge, 200 ft. above hollow, bears N.70° E. and S.70° W.; descend.
- 63.40 Bottom of hollow, 300 ft. below ridge, course S.60° E.; ascend abruptly.
- Difference between measurements of 80.00 chs., by two sets of chainmen, is 10 lks., position of middle point
By 1st set 79.95 chs. .
- By 2nd. set 80.05 chs., the mean. of which is
- 80.00 Set a sandstone, 36x15x5 ins., 27 ins.in the ground, for cor.of secs.25,30,31, and 36,marked with 5 notches on N. and 1 notch on S.edges;and raise a mound of stone, 2 ft.base, 1 $\frac{1}{2}$ ft.high,W.of cor.Pits impracticable.
- Land,mountainous.
- Soil,gravelly and rocky;3rd and 4th rate.
- Timber,scattering cedar and piñon pine.
- Undergrowth,sage brush.
- Good grass for grazing.
- Mountainous land,80.00 chs.

North,betsecs.25 and 30.

Over high broken mountains;through scattering timber and scattering undergrowth;ascend abruptly.

- 5.00 Top of ridge,100 ft.above sec.cor.,bears N.E. and S. W.;descend over a series of ledges.
- Difference between measurements of 40.00 chs., by two sets of chainmen ,is 18 lks.;position of middle point
By 1st set 39.91 chs. .
- By 2nd set 40.09 chs., the mean of which is
- 40.00 Set a sandstone,24x14x4 ins.,18 ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ on W.face;and raise a mound of stone, 2 ft.base, 1 $\frac{1}{2}$ ft.high,W.of cor.Pits impracticable.
- 41.00 Bottom of hollow,500 ft.below ridge, and 20 ft.below

Green River Guide Meridian.through Tps.20 S..etc.-Continued.

Chains	$\frac{1}{2}$ sec.cor.,course S.20°W.;ascend abruptly over ledges.
57.00	Top of ridge,500 ft.above hollow,bears N.20°E.and S.20°W.;descend abruptly over ledges. Difference between measurements of 80.00 chs.,by two sets of chainmen,is 14 lks.,position of middle point By 1st set 79.95 chs. By 2nd set 80.07 chs.,the mean of which is
80.00	Set a sandstone,24x16x14 ins.,18 ins.in the ground,for ccr.of secs.19,24,25, and 30,marked with 4 notches on N.and 2 notches on S.edges;and raise a mound of stone,2 ft.base,1 $\frac{1}{2}$ ft.high,W.of cor,Pits impracticable. Land,mountainous. Soil,gravelly and rocky;3rd and 4th rate. Timber,cedar and pinion pine. Undergrowth,sage brush. Good grass for grazing. Mountainous land,80.00 chs.
18.00	North,betsecs.19 and 24. Over rough and broken mountains;through scattering timber;descend over ledges.
28.00	Bottom of hollow,150 ft.below sec.cor.,course S.10°W. Ascend ,leave ledges.
40.00	Top of ridge,100 ft.above hollow,bears E.and W.;descend abruptly over ledges from 3 ft.to 20 ft.high. Difference between measurements of 40.00 chs.,by two sets of chainmen,is 6 lks.,position of middle point By 1st set 39.97 chs. By 2nd set 40.03 chs.,the mean of which is Set a sandstone, 24x10x8 ins.,18 ins.in the ground,for $\frac{1}{2}$ sec.cor.,marked $\frac{1}{2}$ on W.face;and raise a mound

Green River Guide Meridian through Tds 20 S etc -Continued

- Chains of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
- 53.00 Bottom of hollow, 600 ft. below ridge, and 300 ft. below $\frac{1}{4}$ sec. cor., course S. 70° E.; ascend abruptly over a series of small ledges.
- 75.00 Top of ridge, 600 ft. above hollow, bears N. 70° W. and S. 70° E.; descend abruptly over ledges.
- 79.00 Top of perpendicular cliff, 50 ft. high, bears N. 10° E. and S. 10° W.
Difference between measurements of 80.00 chs., by two sets of chainmen, is 10 lks., position of middle point
By 1st set 79.95 chs.
By 2nd set 80.05 chs., the mean of which is
- 80.00 Set a sandstone, 24x10x6 ins., 18. ins. in the ground, for cor. of secs. 13, 18, 19, and 24, marked with 3 notches on N. and 3 notches on S. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
- Land, mountainous.
Soil, gravelly and rocky; 3rd and 4th rate.
Timber, cedar and pinion pine.
Good grass for grazing.
Mountainous land, 80.00 chs.
-
- North, bet. secs. 13 and 18.
Over high and broken mountains; through scattering timber; descend over ledges from 10 ft. to 100 ft. high.
- 20.00 Bottom of hollow, 500 ft. below sec. cor., course S. 20° E.
Ascend over ledges.
Difference between measurements of 40.00 chs., by two sets of chainmen, is 4 lks., position of middle point
By 1st set 39.98 chs.
By 2nd set 40.02 chs., the mean of which is
- 40.00 Set a sandstone, 18x9x8 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of

Green River Guide Meridian, through Tps. 20 S., etc.; -Continued

Chains	stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
44.00	Top of ridge, 650 ft. above hollow, bears E. and W.; descend abruptly over ledges.
55.00	Bottom of hollow, 400 ft. below ridge, course W.; ascend over ledges.
67.00	Top of ridge, 500 ft. above hollow, bears E. and W.; descend over ledges.
	Difference between measurements of 80.00 chs., by two sets of chainmen, is 12 lks., position of middle point
	By 1st set. 79.94 chs.
	By 2nd set 80.06 chs.; the mean of which is
80.00	Set a sandstone, 24x9x8 ins., 18 ins., in the ground, for cor. Of secs. 7, 12, 13, and 18, marked with 2 notches on N. and 4 notches on S. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, gravelly and rocky; 3rd and 4th rate. Timber, cedar and piñon pine. Good grass for grazing. Mountainous land, 80.00 chs.
	May 30.1902: At this cor. I set off $21^{\circ}46'N.$, on the decl. arc; and at 0. h. 2 m. p.m., 1. m.t., observe the sun on the meridian, the resulting lat is $39^{\circ}05'N.$
	North, bet. secs. 7 and 12.
	Over high broken mountains; through scattering timber; descend over ledges from 10 ft. to 100 ft. high.
20.00	Bottom of hollow, 500 ft. below sec. cor., course S.W.; ascend over ledges.
	Difference between measurements of 40.00 chs., by two sets of chainmen, is 8 lks., position of middle point

Green River Guide Meridian through Tps, 20 S., etc.-Continued.

Chains By 1st set 39.96 chs.
By 2nd set 40.04 chs.; the mean of which is
40.00 Set a sandstone, 20x12x4 ins., 15 ins. in the ground, for
 $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of
stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
51.25 Top of ridge, 300 ft. above hollow, bears N. 80° W. and S.
 80° E.; descend abruptly over ledges.
Difference between measurements of 80.00 chs., by two
sets of chainmen, is 20 lks., position of middle point
By 1st set 79.90 chs.
By 2nd set 80.10 chs.; the mean of which is
80.00 Set a sandstone, 18x12x10 ins., 12 ins. in the ground,
for cor. of secs. 1, 6, 7, and 12, marked with 1 notch on
N. and 5 notches on S.edges; and raise a mound of stone,
2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
Land, mountainous.
Soil, gravelly and rocky; 3rd and 4th rate.
Timber, cedar and pinion pine.
Good grass for grazing.
Mountainous land, 80.00 chs.

North, bet. secs. 1 and 6.

Over high mountainous land; through scattering timber;
descend over ledges.

Difference between measurements of 40.00 chs., by two
sets of chainmen, is 16 lks., position of middle point

By 1st set 39.92 chs.

By 2nd set 40.08 chs.; the mean of which is

40.00 Set a sandstone, 28x12x10 ins., 21 ins., in the ground,
for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of
stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.

53.50 Bottom of canon, 1000 ft. below sec.cor. and 500 ft. be-
low $\frac{1}{2}$ sec.cor., course S. 80° E.; ascend over ledges.

Green River Guide Meridian, through Tps. 20 S., etc., -Continued.

Chains	Difference between measurements of 80.00 chs., by two sets of chainmen, is 22 lks., position of middle point By 1st set 79.89 chs.
80.00	Set a sandstone, 30x10x8 ins., 22 ins. in the ground, for cor. of Tps. 19 and 20 S., Rs. 20 and 21 E., marked 19 S. on N.E., 21 E. on S.E., 20 S. on S.W., and 20 E. on N.W. faces; with 6 notches on each edge; from which A pine, 8 ins. diam., bears N. 70° W., 27 lks. dist., marked T. 19 S., R. 20 E., S. 30, B.T. No other trees within limits; raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor. Pits impracticable. Land, mountainous. Soil, gravelly and rocky; 3rd and 4th rate. Timber, cedar and pine. Good grass for grazing. Mountainous land, 80.00 chs. May 30, 1901: At the noon hour the sky is overcast and solar observations are impossible. May 30, 1901.

General Description.

Townships 20 S., Rs. 20 and 21 E., are high and rough mountains, are in what is known as the Book Cliffs. There is but very little agricultural land in these townships and what there is, is almost inaccessible.

Andrew J. Stewart Jr.
U.S. Deputy Surveyor.

May 30, 1901.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by _____, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of _____, showing the respective capacities in which they acted:

R. G. P.
ff 16 S.

_____, Chainman.
_____, Chainman.
_____, Moundman.
_____, Moundman.
_____, Axman.
_____, Axman.
_____, Flagman.

In formal affidavit before me

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted _____, United States Deputy Surveyor, in surveying all those parts or portions of the _____

of the _____
meridian, _____ of _____, which are represented
the foregoing field notes as having been surveyed by him and under his direction; and that said survey
has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the
corner monuments established, according to the instructions furnished by the United States Surveyor
General for _____

R. G. P.
ff 16 S.

_____, Chainman.
_____, Chainman.
_____, Moundman.
_____, Moundman.
_____, Axman.
_____, Axman.
_____, Flagman.

In formal affidavit before me

scribed and sworn to before me this _____
day of _____, 189 _____ }



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, _____, United States Deputy Surveyor, solemnly swear that, in pursuance of a contract received from _____, United States Surveyor General for _____, bearing date _____, day of _____, 180_____, I have well, faithfully, and truly, in my proper person, and in strict conformity with the instructions published by the United States Surveyor General for _____, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____, of the _____ meridian, in the _____, which are represented in foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for _____, and in the specific manner described in the field notes, and the foregoing are the original field notes of such survey; and should any fraud be detected, I will incur the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

United States Deputy Surveyor

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 189_____ }



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, March 19, 1901.
*The foregoing field notes of the survey of the Green River Guide Meridian
 Township 20 North between Range 20 & 21 East of the
 Salt Lake Basin Meridian, Petahy.*

executed by *Andrew Stewart* under his contract No. *243* dated *April 11, 1901*, 180_____, having critically examined, and the necessary corrections and explanations made, the said field notes, and surveys they describe, are hereby approved.

Edward H. Raddeley
 United States Surveyor Gen

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

United States Surveyor Gen

BLANK

PAGE

BLANK

PAGE

Filed June 20, 1907. E.P.S.

4-679.

B

FIELD NOTES

R. S. B.
OF THE SURVEY OF THE

GREEN RIVER GUIDE MERIDIAN

through

Townships No. 19 South

Between Ranges Nos. 20 and 21 East

Of the SALT LAKE BASE AND Meridian,

in the STATE OF UTAH

AS SURVEYED BY

Andrew J. Stewart Jr., United States Deputy Surveyor,
under his Contract No. 243, dated April 12, 1901, 189
Survey commenced May 30, 1901, 189
Survey completed June 1, 1901, 189

6-161

G.M. High 6-00-00

NAMES AND DUTIES OF ASSISTANTS.

William Matson

Chainman

Harvey M. Cluff

Chainman

William Andrews

Chainman

Arthur Wilde

Chainman

Omero Marriotti

Axman

Victor D. Cram

Flagman

To file emergency affidavits in book A. If 205 Rev E

INDEX DIAGRAM.

Township Range

Meanders Page

PRELIMINARY OATHS OF ASSISTANTS.

WE,

and

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey

, Chain..

, Chainm..

Subscribed and sworn to before me this }
day of , 189 }



WE, and

do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey

, Mound ..

, Mound..

Subscribed and sworn to before me this }
day of , 189 }



WE, and

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey

, Axe..

, Axe..

Subscribed and sworn to before me this }
day of , 189 }



I, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

, Flag..

Subscribed and sworn to before me this }
day of , 189 }



Green River Curve Meridian, through Tps. 19 S., between Ranges 20 and 21 E

Survey commenced May 30, 1901, and executed with a W. and L.E. Gurley light mountain transit, Number 1, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc; which is also the least count of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Salt Lake City, found correct, and was approved by the surveyor general for Utah, on May 29, 1901.

I examine the adjustments of the instrument, and correct the level and collimation errors, then, to test the solar apparatus by comparing its indications resulting from solar observations made during p.m., and a.m. hours, with a true meridian established by Polaris observation, I proceed as follows:

At the corner of Townships No. 19 and 20 South, Ranges No. 20 and 21 East, heretofore described, latitude $39^{\circ} 07' N.$, longitude $109^{\circ} 41' W.$, I set off $39^{\circ} 07' N.$, on the lat. arc; $21^{\circ} 40' N.$, on the declination arc; and at 4 h 3 m p.m., l.m.t., determine a true meridian with the solar, and mark a point thereon on a stone, firmly set in the ground, 5.00 chains North of the cor.

May 30, 1901.

May 31, 1901 : At 2 h 50 m a.m., l.m.t., I

Green River Guide Meridian, through Tps. 19 S., between Rs. 20 and 21 E. Co.

observe Polaris at eastern elongation, in accordance with the Manual of Instructions and mark a point in the line thus determined, by a tack driven in a wooden plug set in the ground, east of the stone, already set in the ground, 5.00 chs. N. of the cor.

At 6 h 30 m a.m., l.m.t., I lay off the azimuth of Polaris $1^{\circ} 34.3'$ to the west, and mark the true meridian, thus determined, by cutting a small groove in the stone already set 5.00 chs. North of the cor.; on which the true meridian falls 0.39 ins. east of the true meridian established by observation on Polaris.

At 7 h 3 m a.m., l.m.t., I set off $39^{\circ} 07' N.$, on the latitude arc; $21^{\circ} 54' N.$, on the declination arc; and mark a point in the true meridian determined with the solar, by a cross on the stone already set 5.00 chains North of the corner; on which the true meridian falls 0.35 ins. east of the true meridian established by observation on Polaris.

The solar apparatus by p.m. and a.m. observations, defines positions for true meridians, respectively about $0' 20''$ west and $0' 18''$ east of the true meridian, established by Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 7 h 0 m a.m., l.m.t., is $15^{\circ} 33.8' W.$, the angle

50.

Green River Guide Meridian, through Tps. 19 S., bet. Rs. 20 and 21 E. -Cont.

Chains

thus determined reduced by the table page 100 of the Manual of Instructions gives the mean mag. decl. $15^{\circ} 30' E.$

From the corner of Townships 19 and 20 South Ranges 20 and 21 East, heretofore described,

I run

North, bet. secs. 31 and 36.

Over mountainous land; through scattering timber.

Ascend .

17.60 Top of ridge, 300 ft. above Tp.cor., bears N. $50^{\circ} W.$ and S. $50^{\circ} E..$

Descend abruptly .

19.00 Top of perpendicular cliff, 50 ft. high, bears N. $50^{\circ} W.$ and S. $50^{\circ} E.$

37.00 Bottom of canon, 800 ft. below ridge, course S. $50^{\circ} E.$

Ascend .

Difference between measurements of 40.00 chs. by two sets of chainmen, is 18 lks., position of middle point

By 1st set 39.91 chs.

By 2nd set 40.09 chs.; the mean of which is
40.00 Set a sandstone, 18x9x5 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor.Pits impracticable:

Difference between measurements of 80.00 bhs. by two sets of chainmen, is 24 lks.; position of middle point

By 1st set 79.88 chs.

Green River Guide Meridian, through Tps. 19 S., bet. Rs. 20 and 21 E. cont

Chains	By 2nd set 80.12 chs.; the mean of which is
80.00	Set a sandstone, 18x9x8 ins., 12 ins. in the ground, for cor. of secs. 25, 30, 31, and 36, marked with 5 notches on N., and 1 notch on S. edges; from which
	A cedar, 8 ins. diam., bears N. 35° E., 47 lks. dist., marked T. 19 S., R. 21 E., S. 30, B.T.
	A cedar, 12 ins. diam., bears S. 25° E., 38 lks. dist., marked T. 19 S., R. 21 E., S. 31, B.T.
	A cedar, 12 ins. diam., bears S. 13° W., 52 lks. dist., marked T. 19 S., R. 20 E., S. 36, B.T.
	A pinion pine, 10 ins., in diam., bears N. 43° W., 36 lks. dist., marked T. 19 S., R. 20 E., S. 25, B.T.
	Land, mountainous.
	Soil, gravelly and rocky; 3rd and 4th rate.
	Timber, cedar and pinion pine.
	Good grass for grazing.
	Mountainous land, 80.00 chs.
	North, bet. secs. 25 and 30.
	Over mountainous land; through scattering cedar timber.
	Ascend.
	Difference between measurements of 40.00 chs., by two sets of chainmen, is 8 lks., position of middle point
	By 1st set 39.96 chs.

Green River Guide Meridian, through Tps. 19 S., etc.-Continued.

- Chains By 2nd set 40.04 chs.; the mean of which is
40.00 Set a sandstone, 20x8x5 ins., 15 ins. in the ground, for
 $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of
stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
43.80 Top of ridge, 275 ft. above sec. cor., and 75 ft. above $\frac{1}{4}$
sec. cor., bears N. 20° W. and S. 20° E.; descend.
Difference between measurements of 80.00 chs., by two
sets of chainmen, is 22 lks.; position of middle point
By 1st set 79.89 chs.
By 2nd set 80.11 chs.; the mean of which is
80.00 Set a sandstone, 18x9x7 ins., 12 ins. in the ground, for
cor. of secs. 19, 24, 25, and 30, marked with 4 notches on
N. and 2 notches on S. edges; and raise a mound of stone,
2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
Land, mountainous.
Soil, gravelly and rocky; 3rd and 4th rate.
Timber, cedar and pinion pine.
Good grass for grazing.
Mountainous land, 80.00 chs.
May 31, 1901: At this cor. I set off 21° 55' N., on the decl.
arc; and at 0 h 2 m p.m., l.m.t., observe the sun on
the meridian, the resulting lat. is 39° 09' N.

North, bet. secs. 19 and 24.

Over high rough mountains; through scattering timber;
Descend, over ledges.

- 5.00 Bottom of hollow, 100 ft. below sec. cor., course E.; as-
cend abruptly over ledges.
20.00 Top of ridge, 300 ft. above hollow, bears E. and W.; des-
cend abruptly over a series of ledges.
34.00 Bottom of box canon, 450 ft. below ridge, course S.E.;
ascend abruptly over a series of ledges.
35.60 Top of spur, 200 ft. above hollow, bears N. 50° W. and S. 50°
E.; descend abruptly over ledges.

Green River Guide Meridian, through Tps. 19 S., etc.-Continued.

Chains	Difference between measurements of 40.00 chs., by two sets of chainmen, is 8 lks.; position of middle point By 1st set 40.04 chs. By 2nd set 39.96 chs.; the mean of which is
40.00	Set a sandstone, 20x10x8 ins., 15 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
46.50	Bottom of canon, 200 ft. below ridge, course S.30° E.; ascend abruptly over ledges. Difference between measurements of 80.00 chs., by two sets of chainmen, is 24 lks.; position of middle point By 1st set 79.88 chs. By 2nd set 80.12 chs.; the mean of which is
80.00	Falls on stationary ledge 8x6x5 ft. above ground, on which I cut a cross at the exact cor. point, with 5 notches on N. and 3 notches on S. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.W. of cor., 15 ft. dist. (this mound is placed here on account of not being able to perpetuate a mound in the regular way). Land, mountainous. Soil, gravelly and rocky; 3rd and 4th rate. Timber, cedar and pinion pine. Good grass for grazing. Mountainous land, 80.00 chs.
<hr/>	
	North, bet. secs. 15 and 18. Over high rough mountains; through scattering timber; ascend over ledges from 10 ft. to 200 ft. high.
1.00	Top of ridge, 25 ft. above sec.cor., and 1200 ft. above canon last crossed, bears N.10°W. and S.10°E.; descend gradually along side hill.
19.00	Head of hollow, 100 ft. below ridge, course E.; ascend.
35.00	Top of flat ridge, 100 ft. above hollow, bears N.30°E. and S.30°W.; thence over top of ridge.

Green River Guide Meridian through Twp 19 S. etc.-Continued.

Chains Difference between measurements of 40.00 chs., by two sets of chainmen, is 4 lks.; position of middle point
By 1st set 39.98 chs.
By 2nd set 40.02 chs.; the mean of which is
40.00 Set a sandstone, 24x12x8 ins., 18 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W. face; from which
A pinion pine, 24 ins. diam., bears N. 20° E.,
65 lks. dist., marked $\frac{1}{2}$ S. 18, B.T.
A pinion pine, 24 ins. diam., bears N. 35° W.,
35 lks. dist., marked $\frac{1}{2}$ S. 13, B.T.
46.00 Leave ridge, bears N. 20° W. and S. 20° E.; descend over ledges from 10 ft. to 200 ft. high.
Difference between measurements of 80.00 chs., by two sets of chainmen, is 20 lks. position of middle point
By 1st set 79.90 chs.
By 2nd set 80.10 chs.; the mean of which is
80.00 Set a sandstone, 18x10x8 ins., 12 ins. in the ground, for cor. of secs. 7, 12, 13, and 18, marked with 2 notches on N. and 4 notches on S. edges; and raise a mound of stone, 2 ft. base, 1 ft. high, W. of cor. Pits impracticable. This cor. is 400 ft. below ridge.
Land, mountainous.
Soil, gravelly loam and rocky; 2nd and 4th rate.
Timber, cedar and pinion pine.
Good grass for grazing.
Mountainous land, 80.00 chs.

May 31, 1901.

June 1, 1901: At 7 h 0 m a.m., l.m.t., I set off 39° 10' N., on the lat. arc; 22° 02' N., on the decl. arc; and determine a true meridian, with the solar, at the cor. of secs. 7, 12, 13, and 18.

Thence I run

North, bef. secs. 7 and 12.

Over steep and rugged mountains; through scattering

Green River Guide Meridian, through Tps. 19 S. etc.-Continued.

- Chains timber; descend more gradually.
- Difference between measurements of 40.00 chs., by two sets of chainmen, is 12 lks.; position of middle point
- By 1st set 40.06 chs.
- By 2nd set 39.94 chs.; the mean of which is
- 40.00 Set a sandstone, 16x10x8 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
- This cor. is 300 ft. below sec. cor.
- 72.00 Bottom of canon, 200 ft. below $\frac{1}{4}$ sec. cor., course S. 20° E.; ascend.
- Difference between measurements of 80.00 chs., by two sets of chainmen, is 26 lks.; position of middle point
- By 1st set 79.87 chs.
- By 2nd set 80.13 chs.; the mean of which is
- 80.00 Set a sandstone, 18x10x10 ins., 12 ins. in the ground, for cor. of secs. 1, 6, 7, and 12, marked with 1 notch on N. and 5 notches on S. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits. impracticable.
- Land, mountainous.
- Soil, sandy and gravelly loam; 2nd rate.
- Timber, cedar and pine.
- Good grass for grazing.
- Mountainous land, 80.00 chs.
-
- North, bet. secs. 1 and 6.
- Over mountainous land; through scattering timber and scattering undergrowth; ascend abruptly.
- 15.65 Top of divide ridge between canons draining north into Green River and canons draining south into Grand River (main divide ridge), 300 ft. above sec. cor., bears E. and W.; descend over more rolling country.
- 35.90 Bottom of hollow, 300 ft. below ridge, course N. 70° W.; ascend.

Green River Guide Meridian, through Tps. 19 S. etc.-Continued.

	Chains	Difference between measurements of 40.00 chs., by two sets of chainmen, is 6 lks.; position of middle point
		By 1st set 39.97 chs.
		By 2nd set 40.05 chs.; the mean of which is
40.00	Set a sandstone, 24x16x6 ins., 18 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W. face; from which	
		An aspen, 5 ins. diam., bears N.8°E., 45 lks. dist., marked $\frac{1}{2}$ S.6, B.T.
		A long leaf pine, 24 ins. diam., bears S.74°W., 250 lks. dist., marked $\frac{1}{2}$ S.1, B.T.
45.00	Top of ridge, 50 ft. above hollow, bears E. and W.; descend.	
52.30	Creek, 2 lks. wide, 5 ins. deep, rocky bottom, rapid current, in bottom or hollow, 100 ft. below ridge, course W.; ascend.	
59.00	Foot of perpendicular ledge, 20 ft. high, bears E. and W.	
67.18	Foot of perpendicular ledge, 30 ft. high, bears E. and W.	
75.00	Top of ridge, 300 ft. above hollow, bears E. and W.; descend.	
	Difference between measurements of 80.00 chs., by two sets of chainmen, is 10 lks.; position of middle point	
		By 1st set 79.95 chs.
		By 2nd set 80.05 chs.; the mean of which is
80.00	Set a sandstone, 36x24x16 ins., 22 ins. in the ground, for cor. of Tps. 18 and 19 S., Rs. 20 and 21 E., marked 18 S. on N.E., 21 E. on S.E., 19 S. on S.W., and 20 E. on N.W. faces; with 6 notches on each edge; from which	
		An aspen, 4 ins. diam., bears N.78°E., 50 lks. dist., marked T.18 S., R.21 E., S.31, B.T.
		An aspen, 4 ins. diam., bears S.30°E., 18 lks. dist., marked T.19 S., R.21 E., S.6, B.T.
		An aspen, 4 ins. diam., bears S.22°W., 14 lks. dist., marked T.19 S., R.20 E., S.1, B.T.
		An aspen, 4 ins. diam., bears N.80°W., 25 lks.

Green River Guide Meridian, through Tps. 19 S etc -Concluded

Chains . dist., marked T. 18 S., R. 20 E., S. 36, B. T.
Land, mountainous.
Soil, loam and gravelly; 1st and 3rd rate.
Timber, cedar, aspen, and pine.
Undergrowth, oak and service berry.
Good grass for grazing.
Mountainous land, 80.00 chs.

June 1, 1901.

Townships 19 S., Rs. 20 and 21 East, south of the main divide ridge is very steep rough and precipitous, the ledges ranging from 10 ft. to 200 ft. high. The part of the township north of the divide ridge is more rolling and has plenty of water for grazing purposes.


Andrew J. Stewart Jr.
U.S. Deputy Surveyor.

June 1, 1901.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by

United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the Survey of

showing the respective capacities in which they acted:

(Signature) Chairman.
(Signature) Chairman.
(Signature) Moundman.
(Signature) Moundman.
(Signature) Arman.
(Signature) Arman.
(Signature) Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted

United States Deputy Surveyor, in surveying all those parts or portions of the

of the
meridian, of which are represented
at the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully performed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for

(Signature) Chairman.
(Signature) Chairman.
(Signature) Moundman.
(Signature) Moundman.
(Signature) Arman.
(Signature) Arman.
(Signature) Flagman.

Subscribed and sworn to before me this day of 180 }

RECORDED
SEARCHED
INDEXED

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, _____, United States Deputy Surveyor _____, solemnly swear that, in pursuance of a contract received from United States Surveyor General for _____, bearing date c _____ day of _____, 189_____, I have well, faithfully, and truly, in my proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for _____, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____

_____ of the _____ meridian, in the _____ of _____, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will incur the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

United States Deputy Surveyor

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 189 }



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City Feb 19 1903,
The foregoing field notes of the survey of *The Second Range Cascade Mts*,
in Township 19 South between Range 20 and 21 East,
The Salt Lake Basin Division, Utah.

executed by _____, *Edward N. Threlkeld*,
under his contract No. 1473, dated _____, 1901, 189_____, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Edward N. Threlkeld
United States Surveyor G.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____ has been correctly copied from the original notes on file in this office.

United States Surveyor G.

BLANK

PAGE

BLANK

PAGE

FIELD NOTES

OF THE SURVEY OF THE

South, West, and North Boundaries.....

of.....

Township No. 19 South, Range No. 20 East.....

Of the SALT LAKE BASE AND Meridian,

in the STATE OF UTAH

AS SURVEYED BY

Andrew J. Stewart Jr., United States Deputy Surveyor,

Under his Contract No. 243, dated April 12, 1901, *XED*

Survey commenced June 2, 1901, *XED*

Survey completed June 10, 1901, *XED*

6-151

Mountainside, " "	5.79. 31'
West " "	6.50. 50'
East " "	5.79. 73'
	<u>17.08. 16'</u>

NAMES AND DUTIES OF ASSISTANTS.

William Watson Chairman
Harry M. Cluff Chairman
William Andrews Manager
Arthur Wilder Manager
Omero Meniotti Asst. Manager
Victor Crain Flagman

INDEX DIAGRAM.

Township _____, *Range* _____

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
20	29	28	27	26	25
31	32	33	34	35	36

Meanders Page _____

PRELIMINARY OATHS OF ASSISTANTS.

WE, William Matson and Harvey M. Stilts, do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will lay chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; we will report the true distances to all notable objects, and the true lengths of all lines that we are measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of the S.W. and N. bdy. of J. 19 S., R. 20 E., the W. and N. bdy. of J. 18 S., R. 20 E., the S.W. and N. bdy. of J. 19 S., the W. and N. bdy. of J. 17 S., R. 20 E., the W. and N. bdy. of J. 17 S., R. 19 E., the W. bdy. of J. 16 S., R. 20 E., and the W. bdy. of J. 16 S., R. 19 E. of the Salt Lake Base and meridian wall.

William Matson, Chainman

Harvey M. Stilts, Chainman

Subscribed and sworn to before me this

27th

day of May 1901, 1889



Hyrum F. Thomas
Natony P. Dabbs

WE, William Andrews and Arthur Wilde, do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of the S.W. and N. bdy. of J. 19 S., R. 20 E., the W. and N. bdy. of J. 18 S., R. 20 E., the S.W. and N. bdy. of J. 18 S., R. 19 E., the W. and N. bdy. of J. 17 S., R. 20 E., the W. and N. bdy. of J. 17 S., R. 19 E., the W. bdy. of J. 16 S., R. 20 E., and the W. bdy. of J. 16 S., R. 19 E. of the Salt Lake Base and meridian wall.

William Andrews, Moundman

Arthur Wilde, Moundman

Subscribed and sworn to before me this

27

day of May 1901, 1889



Hyrum F. Thomas
Natony P. Dabbs

WE, Omero Mariotti and James D. Marr, do

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of and other duties, according to instructions given us, to the best of our skill and ability, in the survey of the S.W. and N. bdy. of J. 19 S., R. 20 E., the W. and N. bdy. of J. 18 S., R. 20 E., the S.W. and N. bdy. of J. 18 S., R. 19 E., the W. and N. bdy. of J. 17 S., R. 20 E., the W. and N. bdy. of J. 17 S., R. 19 E., the W. bdy. of J. 16 S., R. 20 E., and the W. bdy. of J. 16 S., R. 19 E. of the Salt Lake Base and meridian wall.

Omero Mariotti, Axman

Subscribed and sworn to before me this

27th

day of May 1901, 1889



Hyrum F. Thomas
Natony P. Dabbs

I, Victor D. Cram, do solemnly swear that I will well and perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of the S.W. and N. bdy. of J. 19 S., R. 20 E., the W. and N. bdy. of J. 18 S., R. 19 E., the W. and N. bdy. of J. 17 S., R. 20 E., the W. and N. bdy. of J. 17 S., R. 19 E., the W. bdy. of J. 16 S., R. 20 E., and the W. bdy. of J. 16 S., R. 19 E. Victor D. Cram, Flagman of the Salt Lake Base and meridian wall.

Subscribed and sworn to before me this

27th

day of May 1901, 1889



Hyrum F. Thomas
Natony P. Dabbs

*My commission expires
March 26 - 1905.*

South boundary of T.19 S., R.20 E.

Survey commenced June 2, 1901, and executed with a W. and L.E. Gurley light mountain transit, No. 3, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc; which is also the least count of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Salt Lake City, found correct, and was approved by the surveyor general for Utah, May 29, 1901.

To examine the adjustments of the instrument, and correct the level and collimation errors, then, to test the solar apparatus, by comparing its indications resulting from solar observations made during p.m. and a.m. hours, with a true meridian, resulting from observation on Polaris, I proceed as follows:

At the cor. of Tps. 19 and 20 S., Rs. 20 and 21 E., here-to fore described, latitude $39^{\circ}07'N.$, longitude $109^{\circ}41'W.$, I set off $39^{\circ}07'N.$, on the lat. arc; $22^{\circ}12'N.$, on the decl. arc; and at 3 h 2 m p.m., l.m.t., determine a true meridian with the solar, and mark a point thereof on a stone firmly set in the ground, 5.00 chs. N. of the cor.

June 3, 1901.

June 4, 1901: At 2 h 35 m a.m., l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual, and mark a point in the line thus determined, on a plug driven in the ground, 5.00 chs. N. of the cor.

At 6 h 30 m a.m., l.m.t., I lay off the azimuth of Polaris $1^{\circ}54.3'$ to the west, and mark the true meridian thus determined, by cutting a small groove in the stone, already set 5.00 chs. N. of the cor.; on which the true meridian falls 0.59 ins. east of the mark determined with the solar.

At 7 h 0 m a.m., l.m.t., I set off $39^{\circ}07'N.$, on the lat.

South boundary of T 18 S .R.20 E.-Continued.

Chains arc; $22^{\circ} 25' N.$, on the decl.arc; and mark a point in the true meridian determined with the solar, by a cross on the stone, already set 5.00 chs.N.of the cor.; this mark falls 0.35 ins.east of the true meridian established by Polaris observation.

The solar apparatus by p.m. and a.m. observations, defines positions for true meridians, respectively about $0^{\circ} 20''$ west and $0^{\circ} 18''$ east of the true meridian established by Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 7 h 30 m a.m., is $15^{\circ} 33.8' W.$, the angle thus determined, reduced by the table page 100 of the Manual, gives the mean mag.decl. $15^{\circ} 30' E.$.

From the above described cor. I run West, on a true line bet.secs.1 and 36.

Over mountainous land; through scattering timber and scattering undergrowth; ascend abruptly over a series of ledges from 10 ft. to 150 ft. high.

26.00 Top of ridge, 275 ft. above Tp.cor., bears N. $20^{\circ} W.$ and S. $20^{\circ} E.$; descend abruptly over ledges.

40.00 Set a sandstone, 30x15x15 ins., 22 ins.in the ground, for $\frac{1}{2}$ sec.cor., from which

.. pinion pine, 12 ins.diam., bears N. $80^{\circ} W.$, 20 lks.dist., marked $\frac{1}{2}$ S.36,B.T.

A pinion pine, 8 ins.diam., bears S. $27^{\circ} E.$, 29 lks.dist., marked $\frac{1}{2}$ S.1,B.T.

54.00 Bottom of hollow, 250 ft.below ridge, course S. $20^{\circ} E.$; ascend abruptly over ledges.

80.00 Set a sandstone, 18x14x8 ins., 12 ins.in the ground, for cor.of secs.1,2,35, and 36, marked with 1 notch on E. and 5 notches on W.edges; from which

.. pine, 3 ft.diam., bears N. $50^{\circ} E.$, 70 lks. dist., marked T.10 S., R.20 E., S.36,B.T.

South boundary of T. 10 S. - R. 20 E. - Continued

Chains	A pinion pine, 6 ins. diam., bears S. 65° E., 12 lks. dist., marked T. 20 S., R. 20 E., S. 1, B. T. A pinion pine, 8 ins. diam., bears S. 66° W., 185 lks. dist., marked T. 20 S., R. 20 E., S. 2, B. T. A pinion pine, 9 ins. diam., bears N. 67° W., 180 lks. dist., marked T. 19 S., R. 20 E., S. 35, B. T.
	Land, mountainous.
	Soil, gravelly and rocky; 3rd and 4th rate.
	Timber, cedar and pinion pine.
	Undergrowth, oak and service-berry.
	Good grass for grazing.
	Mountainous land, 80.00 chs.
<hr/>	
	West, on a true line bet. secs. 2 and 35.
	Over high and rough mountains; through scattering timber and scattering undergrowth; ascend.
1.80	Top of ridge, 25 ft. above sec. cor., bears N. and S.; descend abruptly over ledges.
15.00	Bottom of canon, 800 ft. below ridge, course S. 20° E.; ascend abruptly over ledges.
38.00	Top of ridge, 800 ft. above canon , bears N. 20° W. and S. 20° E.; descend over ledges.
40.00	Set a sandstone, 20x17x4 ins., 15 ins. in the ground, for sec. cor., marked $\frac{1}{2}$ on N. face; from which A red pine, 22 ins. diam., bears N., 60 lks. dist., marked $\frac{1}{2}$ S. 35, B. T. A red pine, 14 ins. diam., bears S., 42 lks. dist., marked $\frac{1}{2}$ S. 2, B. T.
48.00	Bottom of hollow, 300 ft. below ridge, course S. 20° E.; ascend.
54.80	Top of ridge, 400 ft. above canon, bears N. and S.; descend.
65.75	Bottom of hollow, 250 ft. below ridge, course S.; ascend abruptly.
76.00	Top of ridge, 200 ft. above hollow, bears N. and S.; des-

South boundary of T.19 S., R.20 E. -Continued.

Chains	cend .
80.00	Set a sandstone, 18x10x8 ins., 12 ins. in the ground, for cor. of secs. 2, 5, 34, and 35, marked with 2 notches on E. and 4 notches on W. edges; from which A pinion pine, 10 ins. diam., bears N. 5° E., 84 lks. dist., marked T.19 S., R.20 E., S.35, B.T. A pinion pine, 8 ins. diam., bears S. 50° E., 25 lks. dist., marked T.20 S., R.20 E., S.2, B.T. A pinion pine, 10 ins. diam., bears S. 65° W., 60 lks. dist., marked T.20 S., R.20 E., S.3, B.T. An aspen, 12 ins. diam., bears N. 40° W., 30 lks. dist., marked T.19 S., R.20 E., S.34, B.T. Land, mountainous. Soil, gravelly and rocky; 3rd and 4th rate. Undergrowth, oak and sage. Timber, cedar, pinion pine, aspen, and red pine. Good grass for grazing. Mountainous land, 80.00 chs. June 4, 1901: At the noon hour the sky is overcast and solar observations are impossible.

	West, on a true line bet. secs. 5 and 34.
	Over high mountains; through scattering timber and scattering undergrowth; descend abruptly over a series of ledges .
3.00	Bottom of hollow, 200 ft. below sec. cor., course S.; ascend over ledges.
7.00	Top of ridge, 200 ft. above hollow, bears N. and S.; descend over ledges.
7.25	Top of perpendicular ledge, 200 ft. high, bears N. and S.
30.00	Bottom of canon, 600 ft. below ridge, course S.; ascend over ledges.
40.00	Point for $\frac{1}{2}$ sec. cor. falls on steep and rugged side of mountain where it will be impossible to perpetuate a cor. therefore at

South boundary of T.19 S., R.20 E.-Continued.

Chains	
49.80	Top of ridge, 600 ft. above hollow, bears N. and S. Set a sandstone, 18x8x5 ins., 12 ins. in the ground, for witness cor. to $\frac{1}{2}$ sec.cor., marked W.C. on E. face; and $\frac{1}{2}$ cr. N. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable. Descend.
70.00	Bottom of canon, 600 ft. below ridge, course S.10°E.; ascend abruptly over ledges.
80.00	Set a sandstone, 18x9x6 ins., 12 ins. in the ground, for cor. of secs. 3, 4, 33, and 34, marked with 3 notches on E. and 3 notches on W. edges; from which A pinion pine, 4 ins. diam., bears N.35°E., 8 lks. dist., marked T.19 S., R.20 E., S.34, S.T. No other trees within limits; raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, gravelly and rocky; 3rd and 4th rate. Timber, cedar and pinion pine. Undergrowth, sage brush and oak. Good grass for grazing. Mountainous land, 80.00 chs.
	June 4, 1901.

June 5, 1901: At 7 h 0 m a.m., l.m.t., I set off 39°07'N.,
on the lat.arc; 22°32'N., on the decl.arc; and determine
a true meridian with the solar at the cor. of secs.
3, 4, 33, and 34,

Thence I run

West, on a true line bet. secs. 4 and 33.

Over high mountains; through scattering timber; ascend
abruptly over ledges from 20 ft. to 250 ft. high.

13.50	Top of ridge, 275 ft. above sec.cor., bears N.10°W. and S.10°E.; descend over ledges.
33.00	Bottom of hollow, 500 ft. below ridge, course S.; ascend

South boundary of T.19 S., R.20 E.-Continued.

	Chains over ledges.
40.00	Falls on stationary boulder, 24x24x12x ins., above ground, on which I Cut a cross at the exact cor. point, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; from which A pinion pine, 18 ins. diam., bears N. 34° E., 26 lks. dist., marked $\frac{1}{2}$ S. 33, B.T. A pinion pine, 9 ins. diam., bears S. 25° E., 13 lks. dist., marked $\frac{1}{2}$ S. 4, B.T.
50.80	Top of ridge, 600 ft. above hollow, bears N. 20° E. and S. 20° W.; descend over ledges.
74.00	Bottom of canon, 1000 ft. below ridge, course S.W.; ascend spur.
77.00	Top of spur, 100 ft. above canon, bears N. 10° E. and S. 10° W.; descend.
77.10	Top of perpendicular cliff 50 ft. high, bears N. 10° E. and S. 10° W.
79.50	Bottom of canon, 125 ft. below spur, course S. 10° E.; ascend. Enter scattering undergrowth.
80.00	Set a sandstone, 18x16x4 ins., 12 ins. in the ground, for cor. of secs. 4, 5, 32, and 33, marked with 4 notches on E. and 2 notches on W. edges; from which An oak, 5 ins. diam., bears N. 26° E., 19 lks. dist., marked T. 19 S., R. 20 E., S. 33, B.T. A mahogany, 6 ins. diam., bears S. 50° E., 51 lks. dist., marked T. 20 S., R. 20 E., S. 4, B.T. A pine, 24 ins. diam., bears S. 67° W., 45 lks. dist., marked T. 20 S., R. 20 E., S. 5, B.T. A pine, 4 ins. diam., bears N. 68° W., 60 lks. dist., marked T. 19 S., R. 20 E., S. 32, B.T. Land, mountainous. Soil, gravelly and rocky; 3rd and 4th rate. Timber, cedar and pine. Undergrowth, oak and mahogany. Good grass for grazing. Mountainous land, 80.00 chs.

South boundary of T.19 S., R.20 E.-continued.

Chains	West, on a true line bet. secs. 5 and 32. Over very rough mountains; through scattering timber and scattering undergrowth; ascend abruptly over a series of ledges from 20 ft. to 300 ft. high.
38.00	Divide ridge, 1200 ft. above sec. cor., bears N. and S.; descend abruptly over ledges.
40.00	Set a sandstone, 18x9x8 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
74.00	Foot of descent, 900 ft. below ridge, bears N. and S.; enter bottom of Thompson's Canon.
76.00	Creek, 2 lks. wide, 3 ins. deep, course S.
76.50	Trail, bears N. and S.
77.25	Leave canon bottom, bears N. and S.; ascend abruptly over ledges.
80.00	Set a sandstone, 20x12x8 ins., 15 ins. in the ground, for cor. of secs. 5, 6, 31, and 32, marked with 5 notches on E. and 1 notch on W. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of Cor. Pits impracticable. Land, mountainous. Soil, gravelly and rocky; 3rd and 4th rate. Timber, cedar and pinion pine. Undergrowth, oak, mahogany, and sage. Good grass for grazing. Mountainous land, 80.00 chs. June 5, 1901: At the noon hour the sky is overcast and solar observations are impossible.

	West, on a true line bet. secs. 6. and 31. Over high rough mountains; through scattering timber and scattering undergrowth; ascend abruptly over high precipitous ledges.
18.00	Foot of perpendicular ledge, 50 ft. high, bears N. and S.
25.00	Top of ridge, 1400 ft. above sec. cor., bears N. and S.; descend abruptly over ledges.

South boundary of T.19 S., R.20 E.-Continued

- | | |
|--------|---|
| Chains | |
| 28.00 | <p>Top of perpendicular cliff 25 ft. high, bears N. and S.</p> <p>Note: From this point the line runs across a canon about 1000 ft. deep and so rugged and precipitous that it will be impossible to chain across it therefore,</p> <p>Set a sandstone, 20x12x6 ins., 15 ins. in the ground, for witness cor. to $\frac{1}{4}$ sec. cor., marked W.C. on W. face; and $\frac{1}{4}$ on N. face; from which</p> <p>A pinion pine, 10 ins. diam., bears N. 20° W., 40 lks. dist., marked W.C. $\frac{1}{2}$ S. 31, B.T.</p> <p>A pinion pine, 10 ins. diam., bears S., 18 lks. dist., marked W.C. $\frac{1}{4}$ S. 6, B.T.</p> <p>Note : I am unable to get a base for triangulation on the east side of the canon therefore I place a flag on line on ridge on west side of canon; also place a flag at this point and proceed to triangulate from west side of canon.</p> <p>I measure a base line North 10.00 chs. from flag on west side of canon, to point from which the flag at the witness cor. on east side of canon bears S. $79^{\circ} 43' 28''$ E. I compute the distance across as follows:</p> <p>Log tan $79^{\circ} 43' 28''$ = 10.741624 add</p> <p>$\log 10.00 = \frac{1.000000}{1.741624} = 55.16$ chs. also</p> <p>28.00 + 55.16 makes 83.16 chs. therefore I measure 3.75 chs. East from flag making</p> <p>79.41 Set a sandstone, 18x14x4 ins., 12 ins. in the ground, for cor. of Tps. 19 and 20 S., Rs. 19 and 20 E., marked 19 S. on N.E., 20 E. on S.E., 20 S. on S.W., and 19 E. on N.W. faces; with 6 notches on each edge; from which</p> <p>A pine, 4 ins. diam., bears N. 20° E., 96 lks. dist. marked T. 19 S., R. 20 E., S. 31, B.T.</p> <p>A cedar, 4 ins. diam., bears S. 70° E., 20 lks. dist., marked T. 20 S., R. 20 E., S. 6, B.T.</p> <p>A pine, 4 ins. diam., bears N. 26° W., 15 lks. dist., marked T. 19 S., R. 19 E., S. 36, B.T.</p> |

South boundary of T.19 S., R.20 E., Concluded.

Chains No tree in sec.1 within limits; raise a mound of stone,
2 ft. base, 1 $\frac{1}{2}$ ft. high, S. of cor. Pits impracticable.
Land, mountainous.
Soil, gravelly and rocky.
Timber, cedar and pinion pine.
Undergrowth, oak and mahogany.
Good grass for grazing.
Mountainous land, 79.41 chs.

June 5, 1901.

June 6, 1901: At 7 h 0 m a.m., l.m.t., I set off $59^{\circ} 07' N.$
on the lat. arc; $22^{\circ} 39' N.$, on the decl. arc; and determine
a true meridian, with the solar, at the cor. of Tps.
19 and 20 S., Rs. 19 and 20 E.

Thence I, run

North, bet. secs. 31 and 36.

Over mountainous land; through scattering timber and
scattering undergrowth; ascend gradually along east
side of ridge.

22.75 Top of ridge, 50 ft. above sec. cor., bears N. $10^{\circ} E.$ and
S. $10^{\circ} W.$; descend gradually over broken ground.

40.00 Set a sandstone, 16x10x4 ins., 11 ins. in the ground, for
sec. cor., from which

A cedar, 5 ins. diam., bears S. $40^{\circ} W.$, 60 lks.
dist., marked $\frac{1}{2}$ S. 36, E.T.

No other tree within limits; raise a mound of stone,
2 ft. base, 1 $\frac{1}{2}$ ft. high, " of cor. Pits impracticable.

This cor. is about 75 ft. below ridge.

60.00 Set a sandstone, 16x12x6 ins., 11 ins. in the ground, for
cor. of secs. 25, 30, 31, and 36, marked with 5 notches on
N. and 1 notch on S. edges; from which

A pinion pine, 6 ins. diam., bears N. $40^{\circ} E.$, 32
lks. dist., marked T. 19 S., R. 20 E., S. 36, E.T.
A pine, 8 ins. diam., bears S. $32^{\circ} E.$, 16 lks.
dist., marked T. 19 S., R. 20 E., S. 31, E.T.

West boundary of T.19 S., R.20 E., Continued.

Chains	A pinion pine, 10 ins. diam., bears S. 50° E., 48 lks. dist., marked T.19 S., R.19 E., S.36,B.T. A pinion pine, 10 ins. diam., bears N. 50° E., 18 lks. dist., marked T.19 S., R.19 E., S.25,B.T. Land, mountainous. Soil, gravelly; 3rd rate. Timber, cedar and pinion pine. Undergrowth, sage brush and oak. Good grass for grazing. Mountainous land; 80.00 chs.
--------	--

	North, bet. secs. 25 and 30. Over mountainous land; through scattering timber and scattering undergrowth; descend.
27.00	Bottom of canon, 300 ft. below sec. cor., course S. 40° W., ascend abruptly.
40.00	Set a sandstone, 18x9x5 ins., 12 ins. in the ground, for sec. cor., marked \pm on W. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impractic- able.
52.00	Top of ridge, 400 ft. above canon, bears N. 50° E. and S. 50° W.; descend.
80.00	Set a sandstone, 16x9x5 ins., 11 ins. in the ground, for cor. of secs. 18, 24, 25, and 30, marked with 4 notches on N. and 2 notches on S. edges; from which A pinion pine, 12 ins. diam., bears N. 30° E., 25 lks. dist., marked T.19 S., R.20 E., S.10,B.T. A pinion pine, 8 ins. diam., bears S. 20° E., 45 lks. dist., marked T.19 S., R.20 E., S.30,B.T. A pinion pine, 10 ins. diam., bears S. 60° W., 22 lks. dist., marked T.19 S., R.19 E., S.25,B.T. A pinion pine, 10 ins. diam., bears N. 30° W., 30 lks. dist., marked S.10 S., R.19 E., S.24,B.T. Land, mountainous. Soil, gravelly and rocky; 3rd and 4th rate.

West boundary of T.18 S., R.20 E.-Continued.

- Chains Timber, pine and cedar .
Undergrowth, sage brush and oak.
Good grass for grazing.
Mountainous land, 80.00 chs.
June 6, 1901: At this cor. I set off $22^{\circ}38'N.$, on the decl. arc; and at 0 h 3 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $39^{\circ}09'N.$.
-
- North, bet. secs. 19 and 24.
Over mountainous land; through scattering timber; descend abruptly over a series of ledges.
20.00 Bottom of canon, 500 ft. below rec. cor., course S.W.; ascend over ledges.
40.00 Set a sandstone, 20x14x4 ins., 15 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked \pm on W. face; from which
 A pine, 8 ins. diam., bears N. $80^{\circ}E.$, 12 lks. dist., marked \pm S. 19, B.T.
 A sandstone boulder, 8x8x4 ft. above ground,
 bears S. $45^{\circ}W.$, 15 lks. dist., marked (+) B.O.
47.00 Top of ridge, 500 ft. above canon, bears N.E. and S.W.; descend over ledges.
67.00 Bottom of hollow, 400 ft. below ridge, course S.W.; ascend.
80.00 Top of ridge, 400 ft. above hollow, bears N.E. and S.W.
Set a sandstone, 20x16x5 ins., 15 ins. in the ground, for cor. of secs. 15, 18, 19, and 24, marked with 5 notches on N. and 3 notches on S. edges; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
Land, mountainous.
Soil, gravelly and rocky; 3rd and 4th rate.
Timber, cedar and pine.
Good grass for grazing.
Mountainous land, 80.00 chs.

June 6, 1901.

West boundary of T.19 S., R.20 E.-Continued

Chains	<p>June 7, 1801: At 7 h 0 m a.m., l.m.t., I set off $39^{\circ}10'$ N., on the lat.arc; $22^{\circ}45'$ N., on the decl.arc; and determine a true meridian, with the solar, at the cor. of secs. 13, 18, 19, and 24.</p> <p>Thence I run</p> <p>North, bet. secs. 13 and 18.</p> <p>Over mountainous land; through scattering timber; descend abruptly over ledges.</p> <p>11.00 Bottom of hollow, 350 ft. below sec.cor., course S.65° W.; ascend over ledges.</p> <p>25.00 Top of ridge, 500 ft. above hollow, bears N.80° E. and S.80° W.; descend.</p> <p>36.50 Bottom of hollow, 250 ft. below ridge, course S.W.; ascend.</p> <p>40.00 Set a sandstone, 16x10x4 ins., 11 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, 1$\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.</p> <p>55.00 Top of ridge, 100 ft. above hollow, bears N.60° E. and S.60° W.; descend.</p> <p>76.75 Bottom of hollow, 200 ft. below ridge, course S.W.; ascend.</p> <p>80.00 Set a sandstone, 16x10x4 ins., 11 ins. in the ground, for cor.of secs. 7, 12, 13, and 18, marked with 2 notches on N. and 4 notches on S.edges; and raise a mound of stone, 2 ft. base, 1$\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.</p> <p>Land, mountainous.</p> <p>Soil, gravelly and rocky; 3rd and 4th rate.</p> <p>Timber, cedar and pine.</p> <p>Good grass for grazing.</p> <p>Mountainous land, 80.00 ahs.</p>
--------	--

West boundary of T 10 S R 20 E -Continued

Chains	North,bet.secs.7 and 12. Over mountainous land;through scattering timber and scattering undergrowth;ascend.
20.00	Top of ridge,350 ft.above sec.cor.,bears E and W.;descend.
36.00	Bottom of hollow,250 ft below ridge,course S.60°W.;ascend.
40.00	Set a sandstone,18x8x7 ins.,12 ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ on W.face;and raise a mound of stone,2 ft.base, $1\frac{1}{2}$ ft.high,W.of cor.Pits impracticable.
60.00	Top of ridge,300 ft.above hollow,bears N.60°E.and S.60°W.;descend.
80.00	Set a sandstone,20x6x6 ins.,15 ins.in the ground,for cor.of secs.1,6,7, and 12,marked with 1 notch on N. and 5 notches on S.edges;and raise a mound of stone,2 ft.base, $1\frac{1}{2}$ ft.high,W.of cor.Pits impracticable. Land,mountainous. Soil,gravelly and rocky;3rd and 4th rate. Timber,cedar and pinion pine. Undergrowth,oak and mahogany. Good grass for grazing. Mountainous land,80.00 chs.
	June 7,1901:At this cor.I set off $22^{\circ}45'N.$,on the decl.arc;and at 0 h 3 m p.m.,l.m.t.,observe the sun on the meridian,the resulting lat.is $39^{\circ}11'N.$

North,bet.secs.1 and 6.

Over mountainous land; through scattering timber and scattering undergrowth;descend.

3.75 Bottom of hollow,50 ft.below sec.cor.,course S.W.;ascend abruptly.

37.75 Trail on main divide ridge between canons draining northerly and southerly,500 ft.above hollow,bears S.35°E.and N.;thence along top of ridge.

West boundary of T 18 S R 20 E -Concluded

Chains	
40.00	Set a sandstone, 20x10x5 ins., 15 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. "its impractic- able.
45.10	Leave top of ridge, bears N.20°E., S.10°W., and S.; des- cend gradually .
48.00	Enter dense aspen saplings, bears N.E. and S.W.
51.00	Pole fence, bears N.E. and S.W.
70.00	Leave aspen, bears E. and W.
80.00	Set a sandstone, 30x12x10 ins., 22 ins. in the ground, for cor. of Tps, 18 and 19 S., Rs. 19 and 20 E., marked 18 S. on N.E., 20 E. on S.E., 19 S. on S.W., and 19 E. on N.W. faces; with 6 notches on each edge; from which An aspen, 6 ins. diam., bears N.71°E., 220 lks. dist., marked T.18 S., R.20 E., S. 31, B.T. An aspen, 5 ins. diam., bears S.80°E., 242 lks. dist., marked T.19 S., R.20 E., S.6, B.T. An aspen, 4 ins. diam., bears S.65°W., 192 lks. dist., marked T.19 S., R.19 E., S.1, B.T. An aspen, 7 ins. diam., bears N.82°W., 238 lks. dist., marked T.18 S., R.19 E., S.36, B.T.
	Land, mountainous.
	Soil, gravelly loam and rocky; 2nd and 4th rate.
	Timber, cedar and pinion pine, and aspen.
	Undergrowth, oak, mahogany, and aspen.
	Good grass for grazing.
	Mountainous land, or land covered with dense under- growth, 80.00 chs.

June 7, 1901.

June 8, 1901: At 7 h 0 m a.m., l.m.t., I set off 39°12'N.,
on the lat.arc; 22°50'N., on the decl.arc; and determine
a true meridian with the solar, at the cor.of Tps .18
and 19 S., Rs.19 and 20 E.
Thence I run

North boundary of T.19 S R.20 E.-Continued.

Chains East, on a random line along north boundary of Tp., setting temp. $\frac{1}{2}$ sec. and sec. cors. at intervals of 40.00 chs., and at 479.75 chs. Intersect the Green River Guide Meridian, 70 lks. S. of the cor. of Tps. 18 and 19 S., Rs. 20 and 21 E., heretofore described; the falling answers to a correction of 5' or 12 lks. South per mile counting from the cor. of Tps. 18 and 19 S., Rs. 20 and 21 E.

June 8, 1901: At this cor. we set off $22^{\circ} 51' N.$, on the decl. arc; and at 0 h 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $39^{\circ} 12' N.$

Thence I run

S. $89^{\circ} 55' W.$, on a true line bet. secs. 1 and 36.

Over mountainous land; through scattering pine and aspen timber; descend.

20.00 Creek, 5 lks. wide, 6 ins. deep, sluggish current, good water, in bottom of She Canon, 400 ft. below Tp. cor., course N. 5° E.; ascend.

40.00 Set a sandstone, 18x15x8 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.

45.45 Top of ridge, 600 ft. above canon, bears N. and S.; descend.

72.00 Creek, 5 lks. wide, 4 ins. deep, slow current, in branch of She canon, 400 ft. below ridge, course N. 10° E.; ascend.

73.00 From this point a log cabin (claimant unknown), bears North about 3.00 chs. dist.

80.00 Set a sandstone, 20x10x8 ins., 15 ins. in the ground, for cor. of secs. 1, 2, 35, and 36, marked with 1 notch on E. and 5 notches on W. edges; from which

A long leaf pine, 24 ins. diam., bears N. 52° E.

20 lks. dist., marked T.18 S., R.20 E., S.36, B.T.

A long leaf pine, 24 ins. diam., bears S., 66

lks. dist., marked T.19 S., R.20 E., S.1 $\frac{1}{2}$ B.T.

No other trees within limits; raise a mound of stone,

North boundary of T.18 S. R.20 E -Continued

Chains	2 ft.base, $\frac{1}{2}$ ft.high,W.of cor.Pits impracticable. Land,mountainous. Soil,black loam and gravelly;1st and 3rd rate. Timber,pine and cedar and aspen. Good grass for grazing. Mountainous land,80.00 chs.
	S895SW,,on a true line bet.secs.2 and 35. Over mountainous land;through scattering timber and scattering undergrowth;ascend.
5.50	Top of ridge,30 ft.above sec.cor.,bears N.E.and S.W. descend.
38.00	Creek,2 lks.wide,6 ins.deep,in branch of She Canon, 200 ft.below ridge,course N.85° E.;ascend.
40.00	Set a sandstone,24x18x14 ins.,18 ins.in the ground,for $\frac{1}{2}$ sec.cor.,marked $\frac{1}{2}$ on N.face;from which An aspen,5 ins.diam.,bears N.81° W.,65 lks. dist.,marked $\frac{1}{2}$ S.35,B.T. An aspen,5 ins.diam.,bears S.88° W.,70 lks. dist.,marked $\frac{1}{2}$ S.2,B.T.
41.80	Foot of perpendicular cliff 30 ft.high,bears N.and S.
47.50	Top of ridge,150 ft.above canon,bears N.and S.;des- cend.
70.00	Bottom of hollow,100 ft.below ridge,course S.30° E.; ascend through heavy timber.
80.00	Set a sandstone,24x16x12 ins.,18 ins.in the ground, for cor.of secs.2,3,34, and 35,marked with 2 notches on E.and 4 notches on W.edges;from which An aspen,4 ins.diam.,bears N.62° E.,57 lks. dist.,marked T.18 S.,R.20 E.,S.35,B.T. An aspen,4 ins.diam.,bears S.42° E.,16 lks. dist.,marked T.19 S.,R.20 E.,S.2,B.T. A red pine,30 ins.diam.,bears S.83° W.,58 lks.dist.,marked T.19 S.,R.20 E.,S.3,B.T.

North boundary of T. 19 S., R. 20 E. -Continued

Chains A red pine, 30 ins. diam., bears N. 75° W., 88
 lks. dist., marked T. 18 S., R. 20 E., S. 34, B.T.
 Land, mountainous.
 Soil, black loam and gravelly; 2nd and 3rd rate.
 Timber, pine.
 Undergrowth, oak, maple and mahogany.
 Good grass for grazing.
 Mountainous or heavily timbered land, 80.00 chs.

June 8, 1901.

June 10, 1901: At 7 h 2 m a.m., l.m.t., I set off $39^{\circ} 12'$
 N., on the lat. arc; $23^{\circ} 01'$ N., on the dedl. arc; and de-
 termine a true meridian, with the solar, at the cor.
 of secs. 2, 3, 34, and 35.

Thence I run:

S. $89^{\circ} 55'$ W., on a true line bet. secs. 3 and 34.

Over mountainous land; through heavy timber; ascend.

- 26.20 Top of divide ridge between Willow Creek Canon and She Canon, 600 ft. above sec. cor., bears N. 10° W. and S. 10° W.; leave timber and enter scattering undergrowth, bears with ridge; descend abruptly.
- 40.00 Set a sandstone, 30x19x6 ins., 22 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
- 73.00 Creek, 2 lks. wide, 4 ins. deep, rapid current, in bottom of branch of Willow Creek Canon, 750 ft. below ridge, course N. 65° W.; ascend.
- 80.00 Top of spur, 100 ft. above canon, bears N. and S. Set a limestone, 18x9x6 ins., 12 ins. in the ground, for cor. of secs. 3, 4, 33, and 34, marked with 3 notches on E. and 3 notches on W. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous.
- Soil, black loam and gravelly; 1st and 3rd rate.

North boundary of T.19 S., R.20 E.-Continued.

Chains	Timber, cedar and pine. Undergrowth, oak and aspen. Good grass for grazing. Mountainous or heavily timbered land; 80.00 ins.
	S. 89° 55' W., on a true line bet. secs. 4 and 33. Over mountainous land; through scattering undergrowth and a few scattering pine trees; descend .
30.30	Creek, 3 lks. wide, 2 ins. deep, in branch of Willow Creek Canon, 100 ft. below Sec. cor., course S. 80° W.; as- cend low spur.
32.50	Top of spur, 25 ft. above canon, bears N.E. and S.W.; de- scend.
38.42	Creek, 5 lks. wide, 6 ins. deep, rapid current, mud bottom, good water, in bottom of Willow Creek Canon, 30 ft. be- low spur, course N.; ascend.
40.00	Set a sandstone, 20x16x6 ins., 15 ins. in the ground, for 1/2 sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Its imprac- ticable.
43.80	Top of spur, 50 ft. above canon, bears N. and S.; descent.
62.00	Creek, 4 lks. wide, 5 ins. deep, in branch of Willow Creek Canon, 50 ft. below spur, course N. 60° E.; ascend .
72.40	Foot of perpendicular ledge, 20 ft. high, bears N. and S.
80.00	Set a sandstone, 18x14x5 ins., 12 ins. in the ground, for cor. of secs. 4, 5, 32, and 33, marked with 4 notches on E. and 2 notches on W. edges; from which A pine, 12 ins. diam., bears S. 60° W., 62 lks. dist., marked T.19 S., R.20 E., S.5, B.T. No other trees within limits; raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Fits impracticable. Land, mountainous, Soil, black loam and gravelly; 1st and 3rd rate. Timber, scattering pine.

North boundary of T 19 S .R 20 E -Continued

- Chains Undergrowth, aspen and maple.
- Good grass for grazing.
- Mountainous land ,80.00 chs.
- June 10, 1901: At the noon hour the sky is overcast and solar observations are impossible.
-
- S.89° 55' W., on a true line bet. secs. 5 and 32.
- Over mountainous land; through scattering timber and scattering undergrowth; ascend.
- 24.62 Top of ridge, 400 ft. above sec.cor., bears N.20° W. and S.20° E.; descend.
- 40.00 Set a sandstone, 16x14x10 ins., 11 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N of cor. Pits impracticable.
- 42.00 Bottom of hollow, 25 ft. below $\frac{1}{2}$ sec.cor., course S.E.; ascend.
- 60.00 Top of ridge, 600 ft. above hollow, bears N.30° W. and S.50° E.; descend..
- 80.00 Set a sandstone, 15x8x5 ins., 10 ins. in the ground, for cor. of secs. 5, 6, 31, and 32, marked with 5 notches on E. and 1 notch on E. edges; from which
- An aspen, 5 ins. diam., bears N.28° E., 48 lks. dist., marked T.18 S., R.20 E., S.32, B.T.
- An aspen, 6 ins. diam., bears S.50° E., 84 lks. dist., marked T.19 S., R.20 E., S.5, B.T.
- An aspen, 6 ins. diam., bears S.45° W., 127 lks. dist., marked T.19 S., R.20 E., S.6, B.T.
- An aspen, 6 ins. diam., bears N.42° W., 46 lks. dist., marked T.18 S., R.20 E., S.31, B.T.
- Land, mountainous.
- Soil, black loam and gravelly loam; 1st and 2nd rate.
- Timber, pine and aspen.
- Undergrowth, aspen saplings and oak.
- Good grass for grazing.

North boundary of T.19 S. R.20 E.-Continued

Chains	Mountainous land, 80.00 chs.
	S. 89° 55' W., on a true line bet. secs. 6 and 31.
	Over mountainous land; through scattering timber and dense undergrowth; descend.
5.00	Bottom of hollow, 25 ft. below sec. cor., course S. 65° E.; ascend.
40.00	Set a sandstone, 18x10x6 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound or stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high; N. of cor. Pits impracticable.
44.25	Top of ridge, 800 ft. above hollow, bears N. 35° W. and S. 35° E.; descend.
55.00	Bottom of hollow, 300 ft. below ridge, course S. 35° E.; ascend.
66.00	Top of ridge, 330 ft. above hollow, bears N. and S.; this is the divide bet. Willow Creek and Pioche canons. descend.
79.75	The cor. of Tps. 18 and 19 S., Rs. 19 and 20 E. Land, mountainous. Soil, black loam and gravelly; 1st and 3rd rate. Timber, pine. Undergrowth, aspen, oak, and maple. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.75 chs.

June 10, 1901.

Boundaries of T.19 S., R.20 E.

Latitudes, departures and closing errors.

Line designated	True bearing	Dist- ance	latitudes N. chs.	departure E. chs.	W. chs.
W.bdy.T.19 S., R.20 E.	North	480.00	480.00		
N.bdy.T.19 S., R.20 E.	N. 89° 55' E	479.75	.70		479.75
E.bdy.T.19 S., R.20 E.	South	480.00		480.00	
S.bdy.T.19 S., R.20 E.	West	479.41			479.41
Convergency				.59	
Error in lat.			480.70	480.00	480.34
Error in dep.			480.00		479.41
			.70		.9..

Boundaries of T.19 S., R.20 E.-Concluded.

This township is very rough and mountainous in the southern part or south of the divide ridge, and more rolling and well watered in the northern part. It should be subdivided.

Andrew J. Stewart Jr.
U.S. Deputy Surveyor.

June 10, 1901.

Volume

#

R0290

BLANK

PAGE

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by
..... United States Deputy Surveyor, to assist in running, measuring, and
marking the lines and corners described in the foregoing field notes of the survey of
..... following the respective capacities in which they acted: R. J. F.
....., Chainman.
....., Chainman.
....., Moundman.
....., Moundman.
....., Arman.
....., Arman.
....., Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted
..... United States Deputy Surveyor, in surveying all
one parts or portions of the
..... of the
..... meridian, of which are represented
the foregoing field notes as having been surveyed by him and under his direction; and that said survey
been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the
ner monuments established, according to the instructions furnished by the United States Surveyor
eneral for
....., Chainman.
....., Chainman.
....., Moundman.
....., Moundman.
....., Arman.
....., Arman.
....., Flagman.
.....
scribed and sworn to before me this }
day of , 189 }

SEAL

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, _____, United States Deputy Surveyor _____, solemnly swear that, in pursuance of a contract received from United States Surveyor General for _____, bearing date of _____ day of _____, 189_____, I have well faithfully, and truly, in my proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for _____, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____

_____ of the _____ meridian, in the _____, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for _____, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will incur the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

United States Deputy Su. v.

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 189 }

SEAL
of the
United States Surveyor General

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Yaldeeb City Relating March 19, 1903,
The North West & South Boundary
of Township 19 South Range 20 East of the Salt
Prairie Deseret Meridian, Relating

executed by _____, *Archibald Stewart Jr.*
under his contract No. 343, dated April 12, 1901, 189_____, having critically examined, and the necessary corrections and explanations made, the said field notes, and surveys they describe, are hereby approved.

Edward H. Rutherford
United States Surveyor Gen.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

BLANK

PAGE

BLANK

PAGE

D.

FIELD NOTES

OF THE SURVEY OF THE

SUBDIVISION

of

Township No. 18 South, Range No. 26 East

Of the SALT LAKE BASE LINE Meridian,

In the STATE OF UTAH

AS SURVEYED BY

Andrew J. Stewart Jr., United States Deputy Surveyor,

Under his Contract No. 243, dated April 11, 1891, 1891.

Survey commenced June 11, 1891, 1891.

Survey completed July 9, 1891, 1891.

4-670

Field Notes

NAMES AND DUTIES OF ASSISTANTS.

William Matson	Chairman
Harley M. Cluff	Chairman
William E. Andrews	Member
Arthur Wille	Member
Omero Mariotti	Member
Victor D. Cram	Flag

INDEX DIAGRAM.

Township....., *Range*.....

6	5	4	3	2	1
7	8	9	10	11	12
15	17	16	15	14	13
19	20	21	22	23	24
20	29	28	27	26	25
31	32	33	34	35	36

Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

WE, William Matson and Harry M. ...

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; we will report the true distances to all notable objects, and the true lengths of all lines that we assist measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey subdivision of S. 19 S., R. 20 E., S. 18 S., R. 20 E., S. 18 S., R. 19 E., S. 17 S., R. 20 E., S. 17 S., R. 19 E., and S. 16 S., R. 20 E., and S. 16 S., R. 19 E. of the Salt Lake Base and Meridian, Utah.

William Matson, Chainm.

Harry M. ..., Chainm.

Subscribed and sworn to before me this 27th

day of May 1901, 189



Almon F. Thomas
Notary Public

Almon F. Thomas

WE, William & Andrew and O. ... do

do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of the subdivision of S. 19 S., R. 20 E., S. 18 S., R. 20 E., S. 18 S., R. 19 E., S. 17 S., R. 20 E., S. 17 S., R. 19 E., S. 16 S., R. 20 E., and S. 16 S., R. 19 E. of the Salt Lake Base and Meridian, Utah.

William & Andrew, Moundm.

Arthur Wilde, Moundm.

Subscribed and sworn to before me this 27

day of May 1901, 189



Almon F. Thomas
Notary Public

Almon F. Thomas

WE, Omoro Mariotti and

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of and other duties, according to instructions given us, to the best of our skill and ability, in the survey of the subdivision of S. 19 S., R. 20 E., S. 18 S., R. 20 E., S. 18 S., R. 19 E., S. 17 S., R. 20 E., S. 17 S., R. 19 E.; S. 16 S., R. 20 E., and S. 16 S., R. 19 E. of the Salt Lake Base and merid.

Omoro Mariotti, Axm.

Axm.

Subscribed and sworn to before me this 27th

day of May 1901, 189



Almon F. Thomas
Notary Public

Almon F. Thomas

I, Victor D. Cram, do solemnly swear that I will well and

perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of the subdivision of S. 19 S., R. 20 E., S. 18 S., R. 20 E., S. 18 S., R. 19 E., S. 17 S., R. 20 E., S. 17 S., R. 19 E.; S. 16 S., R. 20 E., and S. 16 S., R. 19 E. of the Salt Lake Base and merid.

Victor D. Cram, Flagm.

Subscribed and sworn to before me this 27

day of May 1901, 189



Almon F. Thomas
Notary Public

Almon F. Thomas

My commission expires March 26 - 1905.

Subdivision of T.19 S., R.20 E.

Chains Survey commenced June 11, 1901, and executed with a W. and L.E. Gurley light mountain transit, No. 1, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc; which is also the least count of the latitude and declination arcs. The instrument was examined, tested on the true meridian at Salt Lake City, found correct, and was approved by the surveyor general for Utah, on May 29, 1901.

I examine the adjustments of the instrument, and correct the level and collimation errors, then, to test the solar apparatus, by comparing its indications resulting from solar observations made during p.m. and a.m. hours, with a true meridian resulting from observation on Polaris, I proceed as follows:

At the cor. of secs. 1, 2, 35, and 36, heretofore described, ^{on S Bdy of} latitude $39^{\circ} 07' N.$, longitude $109^{\circ} 42' W.$, I set off $39^{\circ} 07' N.$, on the lat. arc; $23^{\circ} 06' N.$, on the decl. arc; and at 3 h 2 m p.m., l.m.t., determine a true meridian, with the solar, and mark a point thereof on a stone, firmly set in the ground, 5.00 chs. N. of the cor.

June 11, 1901.

June 12, 1901: At 2 h 3 m a.m., l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual, and mark a point in the line thus determined, on a plug driven in the ground, 5.00 chs. N. of the cor. At 6 h 30 m a.m., l.m.t., I lay off the azimuth of Polaris $1^{\circ} 34.3'$ to the west, and mark the true meridian thus determined, by cutting a small groove in the stone, already set 5.00 chs. N. of the cor.; on which the true meridian falls 0.33 ins. east of the mark determined with the solar.

At 7 h 3 m a.m., l.m.t., I set off $39^{\circ} 07' N.$, on the lat.

Subdivision of T.19 S. R.20 E.-Continued.

- Chains arc; $23^{\circ} 08' N.$, on the decl. arc; and mark a point in the true meridian determined with the solar, by a cross on the stone already set 5.00 chs. North of the cor.; this mark falls 0.31 ins. east of the true meridian established by Polaris observation:
- The solar apparatus by p.m. and a.m. observations, defines positions for true meridians, respectively about $0' 18''$ west and $0' 16''$ east of the true meridian, established by Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory.
- The magnetic bearing of the true meridian at 7 h 30 m a.m., is $15^{\circ} 33.8' W.$, the angle thus determined, reduced by the table page 100 of the Manual, gives the mean mag. decl. $15^{\circ} 30' E.$.
- From the above described cor. I run
 $N.0^{\circ} 01' W.$, bet. secs. 35 and 36.
Over mountainous land; through scattering timber; ascend abruptly over a series of ledges.
- 28.00 Top of ridge, 500 ft. above sec. cor., bears N. $80^{\circ} W.$ and S. $80^{\circ} E.$; descend abruptly over ledges.
- 40.00 Set a sandstone, 18x9x8 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
- 63.00 Bottom of canon, 600 ft. below ridge, course S.E.; ascend abruptly over ledges.
- 80.00 Set a sandstone, 18x9x8 ins., 12 ins. in the ground, for cor. of secs. 25, 26, 35, and 36, marked with 1 notch on S. and 1 notch on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
Land, mountainous.
Soil, gravelly and rocky; 3rd and 4th rate.
Timber, cedar and pinion pine.
Good grass for grazing.
Mountainous land, 80.00 chs.

Subdivision of T.19 S., R.20 E -Continued

Chains	East, on a random line bet. secs. 25 and 36.
40.00	Set temp. $\frac{1}{2}$ sec.cor.
80.00	Intersect the Green River Guide Meridian, at the cor. or secs. 25, 30, 31, and 36, heretofore described. Thence I run West, on a true line bet. secs. 25 and 36. Over mountainous land; through scattering timber; descend abruptly over a series of ledges.
32.50	Bottom of hollow, 350 ft. below sec.cor., course S. 32° E. Ascend abruptly over ledges.
40.00	Set a sandstone, 18x9x8 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
57.00	Top of ridge, 400 ft. above hollow, bears N.W. and S.E.; descend over ledges.
80.00	The cor. or secs. 25, 26, 35, and 36. Land, mountainous. Soil, rocky; 4th rate. Timber, scattering cedar and pinion pine. Good grass for grazing. Mountainous land, 80.00 chs. June 12, 1901: At the noon hour the sky is overcast and solar observations are impossible.

	N. 0° 01' W., bet. secs. 25 and 26. Over mountainous land; through scattering timber; ascend abruptly over ledges.
38.00	Top of ridge, 650 ft. above sec.cor., bears N.W. and S. E.; descend over ledges.
40.00	Set a sandstone, 20x9x6 ins., 15 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
80.00	Set a sandstone, 24x8x7 ins., 18 ins. in the ground, for cor. of secs. 23, 24, 25, and 26, marked with 2 notches on

Subdivision of T.19 S., R.20 E.-Continued.

Chains S. and 1 notch on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
Land, mountainous.
Soil, gravelly and rocky; 3rd and 4th rate.
Timber, cedar and pinion pine.
Good grass for grazing.
Mountainous land, 80.00 chs.

June 12, 1901.

June 13, 1901: At 7 h 0 m a.m., l.m.t., I set off $39^{\circ}09'$ N., on the lat. arc; $23^{\circ}13'$ N., on the decl. arc; and determine a true meridian with the solar, at the cor. of secs. 23, 24, 25, and 26.
Thence I run
East, on a random line bet. secs. 24 and 25.
40.00 Set temp. $\frac{1}{2}$ sec. cor.
80.10 Intersect Green River Guide Meridian, at the cor. of secs. 19, 24, 25, and 30, heretofore described.
Thence I run
West, on a true line bet. secs. 24 and 25.
Over mountainous land; through scattering timber and scattering undergrowth; ascend abruptly.
14.00 Top of ridge, 300 ft. above sec. cor., bears N. 20° W. and S. 20° E.; descend.
40.05 Set a sandstone, 18x7x5 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
70.00 Bottom of hollow, 700 ft. below ridge, course S. 20° E.; ascend abruptly over ledges.
80.10 The cor. of secs. 23, 24, 25, and 26.
Land, mountainous.
Soil, gravelly and rocky; 3rd and 4th rate.
Timber, cedar and pinion pine.
Undergrowth, oak and mahogany.
Good grass for grazing.

Subdivision of T.19 S..R.20 E.-Continued.

Chains	Mountainous land; 80.10 chs.
	<p>N.0°01'W.betsecs.23 and 24.</p> <p>Over mountainous land; through scattering timber; descend over a series of ledges.</p>
24.00	Bottom of hollow, 250 ft. below sec.cor., course S.20° E.; ascend abruptly over ledges.
40.00	Set a sandstone, 18x10x5 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, " of cor. Pits impracticable.
80.00	Set a sandstone, 20x10x8 ins., 15 ins. in the ground, for cor.of secs.13,14,23, and 24, marked with 3 notches on S. and 1 notch on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, " of cor. Pits impracticable.
	This,cor.is 800 ft.above hollow.
	Land,mountainous.
	Soil,gravelly and rocky; 3rd and 4th rate.
	Timber,cedar and pinion pine.
	Good grass for grazing.
	Mountainous land, 80.00 chs.
	June 13, 1901: At the noon hour the sky is overcast and solar observations are impossible.
	East, on a random line betsecs.13 and 24.
40.00	Set temp. $\frac{1}{2}$ sec.cor.
79.92	Intersect the Green River Guide Meridian, 16 lks.S. of the cor.of secs.13,18,19, and 24, heretofore described.
	Thence I run
	S.89° 53'W., on a true line betsecs.15 and 24.
	Over mountainous land; through scattering timber; descend abruptly over a series of ledges from 20 ft .to 250 ft.high;

Subdivision of T.19 S., R.20 E.-Continued.

- Chains Creek, 5 lks. wide, 3 ins. deep, rocky bottom, rapid current, in bottom of canon, 900 ft. below ridge, course S. 20° E.; ascend abruptly over a series of ledges.
- 22.00 Set a sandstone, 18x10x6 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
- 39.96 Top of ridge, 1000 ft. above canon, bears N. 20° W. and S. 20° E.; descend abruptly over ledges.
- 64.00 Bottom of hollow, 800 ft. below ridge, course S. 20° E.; ascend over ledges.
- 76.50 Top of ridge, 900 ft. above hollow, bears N. 10° W. and S. 10° E.; descend over ledges.
- 79.92 The cor. of secs. 13, 14, 23, and 24.
This cor. is 100 ft. below ridge.
Land, mountainous.
Soil, gravelly and rocky; 3rd and 4th rate.
Timber, cedar and pinion pine.
Good grass for grazing.
Mountainous land, 79.92 chs.

June 13, 1901.

June 14, 1901: At 7 h 3 m a.m., l.m.t., I set off 39° 10' N., on the lat. arc; 23° 16' N., on the decl. arc; and determine a true meridian, with the solar, at the cor. of secs. 13, 14, 23, and 24.

Thence I run

N. 0° 01' W., bet. secs. 13 and 14.

Over mountainous land; through scattering timber; ascend over ledges.

- 13.00 Top of ridge, 225 ft. above sec. cor., bears N. 20° W. and S. 20° E.; descend along side of mountain.
- 40.00 Top of same ridge, bears N. 20° E. and S. 20° W.:
Set a sandstone, 22x12x6 ins., 16 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face and raise a mound of stone,

Subdivision of T.19 S., R.20 E.-Continued

Chains	2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Descend abruptly.
57.80	Bottom of canon, 800 ft. below ridge, course S. 20° W.; ascend.
80.00	Set a sandstone, 24x16x10 ins., 18 ins. in the ground, for cor. of secs. 11, 12, 13, and 14, marked with 4 notches on S. and 1 notch on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable. Land, mountainous. Soil, gravelly and rocky; 3rd and 4th rate. Timber, cedar and pinon pine. Good grass for grazing. Mountainous land; 80.00 chs. June 14, 1901; At the noon hour the sky is overcast and solar observations are impossible.
40.00	N. $89^{\circ} 53'$ E., on a random line bet. secs. 12 and 13.
80.04	Set temp. $\frac{1}{2}$ sec. cor. Intersect the Green River Guide Meridian, at the cor. or secs. 7, 12, 13, and 18, heretofore described. Thence I run S. $89^{\circ} 53'$ W., on a true line bet. secs. 12 and 13. Over mountainous land; through scattering timber; ascend abruptly over ledges..
10.00	Top of ridge, 200 ft. above sec. cor., bears N. and S.; descend abruptly over a series of ledges.
40.02	Set a sandstone, 24x12x8. ins., 18 ins. in the ground, for 1 sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
48.00	Bottom of hollow, 350 ft. below ridge, course S.; ascend.
65.75	Top of ridge, 500 ft. above hollow, bears N. and S.; descend.
80.04	The cor. of secs. 11, 12, 13, and 14.

Subdivision of T. 19 S., R. 20 E -Continued.

Chains	<p>Land, mountainous.</p> <p>Soil, gravelly and rocky; 3rd and 4th rate.</p> <p>Timber, cedar and pinion pine.</p> <p>Good grass for grazing.</p> <p>Mountainous land, 80.04 chs.</p>
	June 14, 1901.
	<hr/> <p>June 15, 1901: At 7 h 0 m a.m., l.m.t., I set off $39^{\circ} 10'$ N., on the lat. arc; $23^{\circ} 18'$ N., on the decl. arc; and determine a true meridian, with the solar, at the cor. of secs. 11, 12, 13, and 14.</p> <p>Thence I run</p> <p>N. $0^{\circ} 01' W.$, bet. secs. 11 and 12.</p> <p>Over mountainous land; through dense undergrowth; ascend.</p>
19.50	Top of divide ridge between canons draining southerly into Grand river and canons draining northerly into Green River, 300 ft. above sec. cor., bears N. 60° E. and S. 60° W.; descend gradually.
30.00	Bottom of swale, 50 ft. below ridge, course W.; ascend.
40.00	Set a sandstone, 24x16x6 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
54.00	Top of ridge, 50 ft. above swale, bears N. 80° W. and S. 80° E.; descend.
67.00	Bottom of hollow, 300 ft. below ridge, course N. W.; ascend.
80.00	Set a sandstone, 18x8x8 ins., 12 ins. in the ground, for cor. of secs. 1, 2, 11, and 12, marked with 5 notches on S. and 1 notch on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	<p>Land, mountainous.</p> <p>Soil, gravelly loam; 2nd rate.</p> <p>No timber.</p>

Subdivision of T.19 S., R.20 E., -Continued.

- Chains Undergrowth, oak, maple, and aspen saplings.
Good grass for grazing.
- Mountainous land, or land covered with dense undergrowth, 80.00 chs..
- N.89° 53' W., on a random line bet. secs. 1 and 12.
- 40.00 Set temp. $\frac{1}{2}$ sec. cor.
- 80.08 Intersect the Green River Guide Meridian, 10 lks. N. of the cor. of secs. 1, 6, 7, and 12, heretofore described.
Thence I run
S.89° 57' W., on a true line bet. secs. 1 and 12.
Over mountainous land; through dense undergrowth; ascend.
- 7.50 Top of divide ridge between canons draining northerly and canons draining southerly, 500 ft. above sec. cor., bears N.E. and S.W.; enter scattering timber, bears with ridge. Descend.
- 35.00 Bottom of She Canon, 500 ft. below ridge, course N.10° E. Ascend.
- 40.04 Set a sandstone, 18x12x8 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; from which
A long leaf pine, 18 ins. diam., bears S.65° E., 30 lks. dist., marked $\frac{1}{2}$ S.1, B.T.
No other trees within limits; raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
From this cor. a spring bears N.15° E. about 10.00 chs. dist. A corral bears N.15° E., about 10.00 chs. dist.
- 60.38 Top of ridge, 500 ft. above canon, bears N. and S.; descend.
- 80.08 The cor. of secs. 1, 2, 11, and 12.
Land, mountainous.
Soil, black loam and gravelly; 1st and 3rd rate.
Timber, pine and cedar.
Undergrowth, oak and sage.
Good grass for grazing.

Subdivision of T.19 S. R.20 E.-Continued.

Chains	Mountainous land, or land covered with dense under-growth, 80.08 chs. June 15, 1901: At this cor. I set off $23^{\circ}14'N.$, on the decl. arc; and at 0 h 3 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $39^{\circ}11'N.$
	N. $0^{\circ}01'W.$, on a random line bet. secs. 1 and 2.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.10	Intersect N. bdy. of Tp., at. the cor. of secs. 1, 2, 35, and 36, heretofore described. Thence I run S. $0^{\circ}01'E.$, on a true line bet. secs. 1 and 2.
10.00	Over mountainous land; through dense undergrowth and scattering timber; descend gradually. Top of ridge, bears E. and W.; descend.
39.50	Creek, 4 lks. wide, 3 ins. deep, in bottom of branch of She Canon, 200 ft. below sec. cor., course N. $10^{\circ}E.$; ascend.
40.10	Set a sandstone, 18x7x6 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
70.00	Top of ridge, 300 ft. above canon, bears E. and W.; descend.
80.10	The cor. of secs. 1, 2, 11, and 12. Land, mountainous. Soil, black loam and gravelly; 1st and 3rd rate. Timber, pine and aspen. Undergrowth, oak and chokecherry. Good grass for grazing. Mountainous land, or land covered with dense under-growth, 80.10 chs.

June 15, 1901.

June 17, 1901: at 7 h 30 m a.m., l.m.t., I set off $39^{\circ}07'$

Subdivision of T.19 S., R.20 E.-Continued.

- Chains N., on the lat.arc; $23^{\circ} 24' N.$, on the decl.arc; and determine a true meridian, with the solar, at the cor.of secs. 2, 3, 34, and 35, on S.bdy.of Tp., heretofore described.
- Thence I run
N. $0^{\circ} 01' W.$, betsecs. 34 and 35.
Over mountainous land; through scattering timber; ascend abruptly over a series of ledges from 10ft. to 200 ft. high.
- 40.00 Set a sandstone, 18x9x7 ins., 12 ins. in the ground, for $\frac{1}{4}$. sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor.Pits impracticable.
- 48.00 Top of ridge, 1000 ft. above sec.cor. and 250 ft. above $\frac{1}{4}$ sec.cor., bears N. $76^{\circ} W.$ and S. $76^{\circ} E.$; descend abruptly over ledges.
- 71.00 Bottom of wanon, 800 ft. below ridge, course E.; ascend over ledges.
- 80.00 Set a sandstone, 20x14x8 ins., 15 ins. in the ground, for cor.of secs. 26, 27, 34, and 35, marked with 1 notch on S. and 2 notches on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor.Pits impracticable.
Land, mountainous.
Soil, gravelly and rocky; 3rd and 4th rate.
Timber, cedar and pinion pine.
Good grass for grazing.
Mountainous land, 80.00 chs.

East, on a random line betsecs. 26 and 35.

- 40.00 Set temp. $\frac{1}{2}$ sec.cor.
- 80.10 Intersect N.and S.line, at the cor.of secs. 25, 26, 35, and 36.
Thence I run
West, on a true line betsecs. 26 and 35.
Over mountainous land; through scattering timber;

Subdivision of T.19 S., R.20 E.-Continued.

- Chains descend abruptly over ledges.
- 10.00 Bottom of canon, 400 ft. below sec.cor., course S.10°E.
Ascend abruptly over ledges from 20 ft. to 200 ft. high.
- 40.05 Set a sandstone, 18x9x6 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable.
- 41.00 Top of ridge, 300 ft. above canon, bears N. and S.; descend.
- 66.00 Bottom of canon, 275 ft. below ridge, course N.42°E.; ascend abruptly over a series of ledges.
- 80.10 The cor. or secs. 26, 27, 34, and 35.
Land, mountainous.
Soil, gravelly and rocky; 3rd and 4th-rate.
Timber, cedar and pinon pine.
Good grass for grazing.
Mountainous land, 80.10 chs.
June 17, 1901: At this cor. I set off 23° 23' N., on the decl.arc; and at 0 h 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39° 08' N.

N.0°01'W., bet. secs. 26 and 27.

- Over mountainous land; through scattering timber; ascend abruptly over ledges.
- 22.00 Top of ridge, 350 ft. above sec.cor., bears E. and W.; descend abruptly over ledges.
- 40.00 Set a sandstone, 18x9x7 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
- 42.00 Bottom of canon, 450 ft. below ridge, course S.70°E.; ascend abruptly over ledges.
- 80.00 Set a sandstone, 18x9x7 ins., 12 ins. in the ground, for cor. of secs. 22, 23, 26, and 27, marked with 2 notches on

Subdivision of T.19.S., R.20 E.-Continued.

- Chains S. and 2 notches on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
Land, mountainous.
Soil, gravelly and rocky; 3rd and 4th rate.
Timber, cedar and pinion pine.
Good grass for grazing.
Mountainous land, \$0.00 chs.

June 17, 1901.

June 18, 1901: At 7 h 2 m a.m., l.m.t., I set off $39^{\circ}04'$ N., on the lat.arc; $23^{\circ}26'$ N., on the decl.arc; and determine a true meridian with the solar, at the cor. of secs. 22, 23, 26, and 27.

Thence I run

East, on a random line bet. secs. 23 and 26.

40.00 Set temp. $\frac{1}{4}$ sec.cor.

80.22 Intersect N. and S.line, 7 lks.S. of the cor. of secs. 23, 24, 25, and 26.

Thence I run

S. $89^{\circ}57'$ W., on a true line bet. secs. 25 and 26.

Over mountainous land; through scattering timber; ascend abruptly over ledges.

33.00 Top of ridge, 500 ft. above sec.cor., bears N. 10° W. and S. 10° E.; descend abruptly over ledges.

40.11 Set a sandstone, 20x8x4 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.

66.50 Bottom of hollow, 400 ft. below ridge, course S.E.; ascend over ledges.

80.22 The cor. of secs. 22, 23, 26, and 27.

Land, mountainous.

Soil, grayelly and rocky; 3rd and 4th rate.

Timber, cedar and pinion pine.

Good grass for grazing.

Subdivision of T 19 S R.20 E -Continued.

Chains	Mountainous land, 80.22 chs.
	N.0°01'W., bet. secs. 22 and 23. Over mountainous land; through scattering timber; ascend along west side of hollow.
40.00	Set a sandstone, 18x8x4 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
80.00	Set a sandstone, 20x16x5 ins., 15 ins. in the ground, for cor. of secs. 14, 15, 22, and 23, marked with 3 notches on S. and 2 notches in E. edges; from which A cedar, 12 ins. diam., bears S. 30° E., 30 lks. dist., marked T. 19 S., R. 20 E., S. 23, B. T. A pinion pine, 24 ins. diam., bears N. 50° W., 50 lks. dist., marked T. 19 S., R. 20 E., S. 15, B. T. No other trees within limits; raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, gravelly and rocky; 2nd and 4th rate. Timber, cedar and pinion pine. Good grass for grazing. Mountainous land, 80.00 chs. June 18, 1901: At the noon hour the sky is overcast and solar observations are impossible.
	 N. 89° 57' E., on a random line bet. secs. 14 and 23. 40.00 Set temp. $\frac{1}{2}$ sec. cor. 80.14 Intersect N. and S. line, at the cor. of secs. 13, 14, 23, and 24. Thence I run S. 89° 57' W., on a true line bet. secs. 14 and 23. Over mountainous land; through scattering timber and scattering undergrowth; descend abruptly over ledges.

Subdivision of T.19 S., R.20 E.-Continued.

Chains	
20.50	Bottom of canon, 1000 ft. below sec.cor., course S.20°E. Ascend abruptly over ledges.
31.50	Top of ridge, 800 ft. above canon, bears N. and S.; descend over ledges.
40.07	Set a sandstone, 18x7x6 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
44.00	Bottom of canon, 600 ft. below ridge, course S.E.; ascend over ledges.
57.00	Top of ridge, 700 ft. above canon, bears N.W. and S.E.; descend.
74.00	Bottom of hollow, 500 ft. below ridge, course S.10°E.; ascend abruptly over ledges.
80.14	The cor. of secs. 14, 15, 22, and 23. Land, mountainous. Soil, gravelly and rocky; 3rd and 4th rate. Timber, scattering cedar and pinion pine. Undergrowth, sage brush and oak brush. Good grazing. Mountainous land, 80.14 chs.

June 18, 1901.

June 19, 1901: At 7 h 2 m a.m., l.m.t., I set off $39^{\circ}16'$ N., on the lat.arc; $23^{\circ}27'$ N., on the decl.arc; and determine a true meridian with the solar, at the cor. of secs. 14, 15, 22, and 23.

Thence I run

N. $0^{\circ}01'$ W., bet. secs. 14 and 15.

Over mountainous land; through scattering timber and scattering undergrowth; ascend abruptly.

19.50 Top of ridge, 300 ft. above sec.cor., bears N.20°E. and S.20°W.; descend over broken ground.

Subdivision of T.19 S. R.20 E.-Continued.

Chains

- 40.00 Set a sandstone, 18x10x8 ins., 12 ins. in the ground, for
½ sec.cor., marked $\frac{1}{4}$ on W.face; from which
An aspen, 6 ins. diam., bears E., 18 lks. dist.,
marked $\frac{1}{2}$ S.14, B.T.
An aspen, 6 ins. diam., bears S.85°W., 20 lks.
dist., marked $\frac{1}{2}$ S.15, B.T.
And raise a mound of stone, 2 ft. base, 1½ ft. high, W. of
cor.
45.00 Bottom of hollow, 400 ft. below ridge, course S.60°W.;
ascend abruptly. Leave timber, bears with hollow.
80.00 Set a sandstone, 18x8x6 ins., 12 ins. in the ground, for
cor.or secs. 10, 11, 14, and 15, marked with 4 notches on
S. and 2 notches on E.edges; and raise a mound of stone,
2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.
Land, mountainous.
Soil, gravelly loam and rocky; 2nd and 4th rate.
Timber, cedar and pinion pine and aspen.
Undergrowth, oak and sage brush.
Good grass for grazing.
Mountainous land, 80.00 chs.
June 19, 1901: At the noon hour the sky is overcast and
solar observations are impossible.

N.89° 57'E., on a random line bet.secs. 11 and 14.

40.00 Set temp. $\frac{1}{4}$ sec.cor.

79.90 Intersect N. and S. line, 17 lks. S. of the cor.or secs.
11, 12, 13, and 14.

Thence I run

S.89° 50'W., on a true line bet.secs. 11 and 14.

Over mountainous land; through scattering timber and
dense undergrowth; descend.

2.50 Bottom of hollow, 50 ft. below sec.cor., course S.; as-
cend.

9.00 Top of ridge, 70 ft. above hollow, bears N. and S.; des-

Subdivision of T.19 S., R.20 E.-Continued.

Chains	cend.
15.00	Bottom of hollow, 80 ft. below ridge, course S.20° E.; a spring of good water bears S.20° E. about 5.00 chs. dist. Ascend.
27.50	Top of divide ridge between canons draining northerly and canons draining southerly, 450 ft. above hollow, bears N.E. and S.W.; descend.
39.95	An aspen, 5 ins. diam., for $\frac{1}{2}$ sec. cor., I mark $\frac{1}{2}$ S.11 on N. side, and S.14 on S. side, from which An aspen, 5 ins. diam., bears N.10° E., 12 lks. dist., marked $\frac{1}{2}$ S.11, B.T. An aspen, 6 ins. diam., bears S.5° E., 15 lks. dist., marked $\frac{1}{2}$ S.14, B.T.
42.50	Bottom of hollow, 500 ft. below ridge, course N.; ascend.
76.00	Top of divide crossed at 27.50 chs., 800 ft. above hollow, bears N.W. and S.E.; descend.
79.90	The cor. or secs. 10, 11, 14, and 15. Land, mountainous. Soil, black loam and gravelly; 1st and 3rd rate. Timber, cedar and pinion pine and aspen. Undergrowth, oak and sage. Good grass for grazing. Mountainous land, or land covered with dense undergrowth; 79.90 chs.
<hr/>	
	N.0°01' W., bet. secs. 10 and 11. Over mountainous land; through scattering undergrowth; ascend.
4.00	Top of divide ridge between canons draining southerly and canons draining northerly, 50 ft. above sec. cor., bears S.W., S.E., and N.E.; descend.
21.00	Enter dense aspen saplings, bears E. and W.
40.00	Set a sandstone, 16x10x7 ins., 11 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; from which

16

Subdivision of T.19 S., R.20 E.-Continued.

Chains	An aspen, 4 ins. diam., bears N. 80° E., 10 lks. dist., marked $\frac{1}{4}$ S. 11, B.T. An aspen, 4 ins. diam., bears S. 70° W., 12 lks. dist., marked $\frac{1}{4}$ S. 10, B.T.
46.00	Bottom of canon, 750 ft. below ridge, course N. 60° W.; ascend.
63.50	Top of spur, 75 ft. above canon, bears N. 70° W. and S. 70° E.; descend.
80.00	Set a sandstone, 16x10x8 ins., 11 ins. in the ground, for cor. of secs. 2, 3, 10, and 11, marked with 5 notches on S. and 2 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impractic- able. Land, mountainous. Soil, black loam and gravelly; 1st and 3rd rate. No timber. Undergrowth, aspen saplings. Good grass for grazing. Mountainous land, or land covered with dense under- growth, 80.00 chs.

June 19, 1901.

June 20, 1901: At 7 h 0 m a.m., l.m.t., I set off $39^{\circ} 11'$ N., on the lat. arc; $23^{\circ} 28'$ N., on the decl. arc; and deter-
mine a true meridian with the solar at the cor. of secs.
2, 3, 10, and 11.
Thence I run
N. $89^{\circ} 50'$ E., on a random line bet. secs. 2 and 11.
40.00 Set temp. $\frac{1}{4}$ sec. cor.
80.02 Intersect N. and S. line, 19 lks. N. of the cor. of secs.
1, 2, 11, and 12.
Thence I run
S. $89^{\circ} 58'$ W., on a true line bet. secs. 2 and 11.
Over mountainous land; through scattering timber and
scattering undergrowth; descend.

Subdivision of T.19 S., R.20 E.-Continued.

Chains

13.60 Creek, 2 lks. wide, 1 inch deep, good water, in bottom of branch of She Canon, 600 ft. below sec. cor., course N. 30° E.; ascend.

40.01 Top of ridge, 800 ft. above canon, bears N.E. and S.W. Set a limestone, 24x12x6 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.

Descend.

80.02 The cor. of secs. 2, 3, 10, and 11.

Land, mountainous.

Soil, black loam and gravelly loam; 2nd and 3rd rate.

Timber, scattering pine.

Undergrowth, oak and sage brush.

Good grass for grazing.

Mountainous land, 80.02 chs.

June 20, 1901: At this cor. I set off 23° 27' N., on the decl. arc; and at 0 h 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39° 11' N.

N. 0° 01' W., on a random line bet. secs. 2 and 3.

40.00 Set temp. π sec. cor.

80.06 Intersect N. bdy. of Tp., at the cor. or secs. 2, 3, 34, and 35, heretofore described.

Thence I run

S. 0° 01' E., on a true line bet. secs. 2 and 3.

Over mountainous land; through heavy timber and scattering undergrowth; ascend.

15.00 Top of ridge, 150 ft. above sec. cor., bears N. 70° W. and S. 70° E.; descend.

30.00 Leave heavy timber and enter scattering timber, bears E. and W.

35.00 Bottom of hollow, 500 ft. below ridge, course S. 60° E.; ascend.

Subdivision of T. 19 S., R. 20 E.-Continued.

Chains	
40.06	Set a sandstone, 20x12x5 ins., 15 ins. in the ground, for ½ sec.cor., marked ½ on W.face; and raise a mound of stone, 2 ft. base, 1½ ft. high, W.of cor. Pits impractic- able.
45.00	Top of spur, 60 ft. above hollow, bears N.70° E. and S.70° W.; descend .
59.00	Spring drain, 2 lks.wide, 1 in.deep, course. N.60° E.
63.50	A spring bears East about 100 lks.dist.
65.00	Creek, 3 lks.wide, 2 ins.deep, in canon, 75 ft.below spur, course N.20° E.; ascend .
80.06	The cor.or secs.2,3,10, and 11. Land, mountainous. Soil, black loam and gravelly loam; 1st and 2nd rate. Timber, pine and aspen. Undergrowth, oak and sage. Good grass for grazing. Mountainous or heavily timbered land, 80.06 chs.

June 20, 1901.

✓ June 21, 1901: At 8 h 0 m a.m., l.m.t., I set off 39° 07'
N., on the lat.arc; 23° 28' N., on the decl.arc; and de-
termine a true meridian with the solar at the cor.or
secs.3,4,33, and 34, heretofore described, on S.bdy.of
Tp.

Thence I run

N.0° 02' W., bet.secs.33 and 34.

Over high mountains; through scattering timber; as-
cend gradually along side of mountain over a series
of ledges from 25 ft.to 300 ft.high.

40.00	Set a sandstone, 18x14x9 ins., 12 ins.in the ground, for ½ sec.cor., marked ½ on W.face; and raise a mound of stone, 2 ft. base, 1½ ft. high, W.of cor. Pits impractic - able.
80.00	Set a sandstone, 24x15x7 ins., 18 ins.in the ground, for

Subdivision of T. 19 S., R. 20 E. -Continued

Chains cor. of secs. 27, 28, 33, and 34, marked with 1 notch on S. and 3 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.

Land, mountainous.

Soil, gravelly and rocky; 3rd and 4th rate.

Timber, scattering cedar and pinion pine.

Good grass for grazing.

Mountainous land, 80.00 chs.

June 21, 1901: At this cor. I set off $23^{\circ} 27' N.$, on the decl. arc; and at 0 h 3 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $39^{\circ} 08' N.$

East, on a random line bet. secs. 27 and 34.

- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 80.06 Intersect N. and S. line, 9 lks. S. of the cor. of secs. 26, 27, 34, and 35.
- Thence I run
S. $89^{\circ} 56' W.$, on a true line bet. secs. 27 and 34.
Over mountainous land; through scattering timber; ascend abruptly over a series of precipitous ledges from 25 ft. to 300 ft. high.
- 22.00 Foot of perpendicular cliff, 300 ft. high, bears N. and S.
- 40.03 Set a sandstone, 18x9x9 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
- 49.00 Top of ridge, 1000 ft. above sec. cor., bears N.W. and S.E.; descend abruptly over ledges.
- 68.00 Bottom of canon, 700 ft. below ridge, course S.; ascend abruptly over ledges.
- 80.06 The cor. of secs. 27, 28, 33, and 34.
- Land, mountainous.
- Soil, gravelly and rocky; 3rd and 4th rate.
- Timber, scattering cedar and pinion pine.

Subdivision of T. 19 S., R. 20 E. -Continued.

Chains	<p>Good grass for grazing. Mountainous land, 80.06 chs.</p> <p style="text-align: right;">June 21, 1901.</p> <hr/> <p>June 22, 1901: At 7 h 0 m a.m., l.m.t. I set off $39^{\circ}08'$ N., on the lat. arc; $23^{\circ}28'$ N., on the decl. arc; and determine a true meridian with the solar at the cor. of secs. 27, 28, 33, and 34.</p> <p>Thence I run N. $0^{\circ}02'$ W., bet. secs. 27 and 28.</p> <p>Over mountainous land; through scattering timber and scattering undergrowth; ascend over a series of ledges.</p> <p>20.00 Top of ridge, 500 ft. above sec. cor., bears N. 60° W. and S. 60° E.; descend abruptly over ledges.</p> <p>40.00 Bottom of hollow, 500 ft. below ridge, course E.</p> <p>Set a sandstone, 18x9x7 ins., 12 ins. in the ground, for a sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.</p> <p>Ascend abruptly.</p> <p>66.00 Top of ridge, 450 ft. above hollow, bears E. and W.; descend.</p> <p>80.00 Set a sandstone, 20x9x8 ins., 15 ins. in the ground, for cor. of secs. 21, 22, 27, and 28, marked with 2 notches on S. and 3 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.</p> <p>Land, mountainous.</p> <p>Soil, gravelly and rocky; 3rd and 4th rate.</p> <p>Timber, scattering cedar and pine.</p> <p>Undergrowth, oak and sage.</p> <p>Good grass for grazing.</p> <p>Mountainous land, 80.00 chs.</p> <p>June 22, 1901: At this cor. I set off $23^{\circ}27'$ N., on the decl. arc; and at 0 h 2 m p.m., l.m.t., observe the sun</p>
--------	---

Subdivision of T.19 S., R.20 E.-Continued,

Chains on the meridian the resulting lat. is $39^{\circ}09'N.$

N. $89^{\circ}56'E.$, on a random line bet. secs. 22 and 27.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.96 Intersect N. and S. line, at the cor. of secs. 22, 23, 26, and 27.

Thence I run

S. $89^{\circ}56'W.$, on a true line bet. secs. 22 and 27.

Over mountainous land; through scattering timber and scattering undergrowth; ascend abruptly over a series of perpendicular ledges from 20 ft. to 200 ft. high.

37.00 Top of ridge, 800 ft. above sec. cor., bears N. and S.; descend over ledges.

39.98 Set a sandstone, 18x9x7 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.

54.00 Bottom of canon, 850 ft. below ridge, course S. $60^{\circ}E.$; Ascend abruptly over ledges.

79.96 The cor. of secs. 21, 22, 27, and 28.

Land, mountainous.

Soil, gravelly and rocky; 3rd and 4th rate.

Timber, cedar and pinon pine.

Undergrowth, oak and mahogany.

Good grass for grazing.

Mountainous land, 79.96 chs.

June 22, 1901.

June 24, 1901: At 7 h 0 m a.m., l.m.t., I set off $39^{\circ}09'N.$, on the lat. arc; $23^{\circ}27'N.$, on the decl. arc; and determine a true meridian with the solar at the cor. of secs. 21, 22, 27, and 28.

Thence I run

N. $0^{\circ}02'W.$, bet. secs. 21 and 22.

Subdivision of T.19 S., R.20 E.-Continued.

Chains	Over mountainous land; through scattering timber and scattering undergrowth; descend abruptly over high ledges .
20.00	Bottom of canon, 450 ft. below sec.cor., course S.50° E.; ascend abruptly over ledges .
40.00	Set a sandstone, 18x9x6 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor.Pits impracticable.
70.00	Top of perpendicular cliff 25 ft. high, bears E. and W. Leave ledges .
80.00	Set a sandstone, 28x14x10 ins., 21 ins. in the ground, for cor.of secs.15,16,21, and 22, marked 19 S.on N.E. and 20 E.on S.E.faces; with 3 notches on S. and 3 notches on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor.Pits impracticable. Land, mountainous . Soil, gravelly and rocky; 3rd and 4th rate. Timber, cedar and pine. Undergrowth, oak and sage brush .. Good grass for grazing. Mountainous land; 80.00 chs. June 24, 1901: at the noon hour the sky is overcast and solar observations are impossible .
40.00	N.89° 56'E., on a random line betsecs.15 and 22. Set temp. $\frac{1}{4}$ sec.cor.
79.90	Intersect N.and S.line, 5 lks.N., of the cor.of secs. 14,15,22, and 23. Thence I run S.89° 58'W., on a true line betsecs.15 and 22. Over mountainous land; through scattering timber; ascend abruptly over ledges .
8.00	Top of ridge, 300 ft.above sec.cor., bears N.E. and S. W.; descend abruptly over a succession of ledges .

Subdivision of T.18 S., R.20 E.-Continued.

Chains	
39.95	Set a sandstone, 18x9x6 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
42.00	Bottom of hollow, 800 ft. below ridge, course S. 20° W.; ascend abruptly over a succession of ledges.
65.00	Leave ledges, bears N. and S.
79.90	The cor. of secs. 15, 16, 21, and 22. This cor. is 1000 ft. above hollow. Land, mountainous. Soil, gravelly and rocky; 3rd and 4th rate. Timber, cedar and pine. Good grass for grazing. Mountainous land, 79.90 chs.

June 24, 1901.

June 25, 1901: At 1 h 12 m a.m., l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual, and mark a point in the line thus determined, by a tack driven in a wooden plug, set in the ground, 5.00 chs. N. of my station, which is the cor. of secs. 15, 16, 21, and 22, latitude $39^{\circ} 10' N.$, longitude $109^{\circ} 44' W.$. At 6 h 30 m a.m., l.m.t., I lay off the azimuth of Polaris $1^{\circ} 34.5'$ to the west, and mark the true meridian thus determined, by cutting a small groove in a stone firmly set in the ground, 5.00 chs. N. of the cor. At 7 h 0 m a.m., l.m.t., I set off $39^{\circ} 10' N.$, on the lat. arc; $23^{\circ} 26' N.$, on the decl. arc; and mark the true meridian thus determined with the solar, by a cross on the stone already set 5.00 chs. N., of the cor.; this mark falls 0.24 ins. east of the true meridian established by Polaris observation; therefore we conclude that the adjustments of the instrument are satisfactory.

Subdivision of T.19 S., R.20 E.-Continued.

Chains The magnetic bearing of the true meridian at 7 h 0 m. a.m., is $15^{\circ}35.6'W.$, the angle thus determined reduced by the table page 100 of the Manual, gives the mean mag.decl. $10^{\circ}30'E.$.

Thence I run

N. $0^{\circ}02'W.$, bet.secs.15 and 16.

Over mountainous land; through scattering timber and scattering undergrowth; ascend .

- 5.00 Top of divide ridge between canons draining northerly and canons draining southerly, 150 ft. above sec.cor., bears N. $30^{\circ}E.$ and S. $30^{\circ}W.$; descend .
- 30.00 Bottom of hollow, 200 ft. below ridge, course W.; ascend .
- 40.00 Set a sandstone, 18x9x7 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable .
- 43.00 Top of ridge, 150 ft. above hollow, bears N.W. and S.E.; descend .
- 50.00 Bottom of hollow, 100 ft. below ridge , course E.; ascend .
- 55.20 Top of same ridge, 100 ft. above hollow, bears E. and W.; descend .
- 80.00 Set a sandstone, 18x12x5 ins., 12 ins. in the ground, for cor.of secs. 9, 10, 15, and 16, marked with 4 notches on S. and 3 notches on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable .

Land, mountainous.

Soil, black loam and gravelly loam; 1st and 2nd rate.

Timber, scattering pine.

Undergrowth, aspen saplings and oak.

Good grass for grazing.

Mountainous land, 80.00 chs.

Subdivision of T.19 S., R.20 E.-Continued.

Chains	
	N. $89^{\circ} 58' E.$, on a random line bet. secs. 10 and 15.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.00	Intersect N. and S. line, at the cor. of secs. 10, 11, 14, and 15. Thence I run $S.89^{\circ} 58' W.$, on a true line bet. secs. 10 and 15. Over mountainous land; through scattering timber and Scattering undergrowth; ascend .
5.00	Top of divide ridge between canons draining southerly and canons draining northerly, 100 ft. above sec. cor., bears N.E. and S.W.; descend .
40.00	Set a sandstone, 24x12x6 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which An aspen, 10 ins. diam., bears N. $50^{\circ} E.$, 53 lks. dist., marked $\frac{1}{4}$ S. 10, B.T. An aspen, 12 ins. diam., bears S. $50^{\circ} E.$, 63 lks. dist., marked $\frac{1}{4}$ S. 15, B.T.
41.50	Bottom of canon, 800 ft. below ridge, course N. $25^{\circ} E.$; ascend .
78.80	Top of ridge, 600 ft. above canon, bears N. $20^{\circ} E.$ and S.; descend .
80.00	The cor. of secs. 9, 10, 15, and 16. Land, mountainous . Soil, black loam and sandy ; 1st and 3rd rate. Timber, pine. and aspen . Undergrowth, oak and sage brush . Good grass for grazing. Mountainous land, 80.00 chs.
	June 25, 1901: At the noon hour the sky is overcast and solar observations are impossible.

N. $0^{\circ} 02' W.$, bet. secs. 9 and 10.
Over mountainous land; through scattering timber and scattering undergrowth; descend .

20.00 Bottom of swale, 50 ft. below ridge , course ~~W.~~ ; as-

Subdivision of T.19 S., R.20 E.-Continued.

	Chains cend .
40.00	Set a sandstone, 18x12x6 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; from which A pine, 12 ins. diam., bears N. 55° W., 50 lks. dist., marked $\frac{1}{4}$ S. 9, B.T.
	No other tree within limits; raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
44.00	Top of ridge, 50 ft. above swale, bears N.W. and S.E.; descend .
65.00	Creek, 2 lks. wide, 2 ins. deep, in bottom of branch of Willow Creek Canon, 200 ft. below ridge, course N. 30° W.; Leave timber, bears with canon. Ascend .
80.00	Set a sandstone, 18x9x5 ins., 12 ins. in the ground, for cor. of secs. 3, 4, 9, and, 10, marked with 5 notches on S. and 3 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous.
	Soil, sandy loam; 2nd rate.
	Timber, pine and aspen.
	Undergrowth, oak and sage brush.
	Good grass for grazing.
	Mountainous land, 80.00 chs.

June 25, 1901.

	June 26, 1901: At 7 h 0 m a.m., l.m.t., I set off 39° 11' N., on the lat. arc; 23° 25' N., on the decl. arc; and determine a true meridian with the solar, at the cor. of secs. 3, 4, 9, and 10. Thence I run N. 89° 58' E., on a random line bet. secs. 3 and 10.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.92	Intersect N. and S. line, 7 lks. S. of the cor. of secs. 2, 3, 10, and 11. Thence I run S. 89° 55' W., on a true line bet. secs. 3 and 10. Over mountainous land; through scattering timber and

Subdivision of T.19 S., R.20 E.-Continued.

Chains	scattering undergrowth; descend .
4.70	Creek, 3 lks. wide, 2 ins. deep, in branch of She Canon, 100 ft. below sec.cor., course N.20°E.; ascend .
34.00	Top of ridge, between She and Willow Creek canons, 800 ft. above canon, bears N.20°E. and S.20°W.; descend .
39.96	Set a sandstone, 14x10x6 ins., 9 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impractic- able.
79.92	The cor. or secs. 3, 4, 9, and 10. Land, mountainous. Soil, sandy loam; 2nd rate. Timber, cedar and pine and aspen . Undergrowth, oak and sage brush. Good grass for grazing . Mountainous land, 79.92 chs. June 26, 1901: At this cor. I set off 23° 23' N., on the decl. arc; and at 0 h 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39° 11' N.

N.0°02'W., on a random line bet. secs. 3 and 4.

40.00	Set temp. $\frac{1}{4}$ sec.cor.
79.90	Intersect. N.bdy. of Tp., at the cor. of secs. 3, 4, 33, and 34, heretofore described. Thence I run. S.0°02'E., on a true line bet. secs. 3 and 4. Over mountainous land; through scattering aspen sap- lings ; ascend along top of ridge .
10.00	Leave ridge, bears N. and S.E.; descend .
32.50	Bottom or hollow, 200 ft. below ridge, course N.80°W.; ascend .
39.90	An aspen, 4 ins. diam., for $\frac{1}{4}$ sec.cor.; I mark $\frac{1}{4}$ S.4 on W. side and S.3, on E. side, from which An aspen, 4 ins. diam., bears S.75°E., 70 lks. dist., marked $\frac{1}{4}$ S.3, B.T.

Subdivision of T. 18 S., R. 20 E.-Continued.

Chains An aspen, 4 ins. diam., bears S.85°W., 10 lks.
dist., marked π S.4,B.T.

60.00 Top of ridge, 150 ft. above hollow, bears E. and W.; descend. Enter scattering pine timber, bears with ridge.

70.90 The cor. of secs. 5, 4, 7, and 10.
Land, mountainous.
Soil, gravelly loam and sandy loam; 2nd rate.
Timber, scattering pine.
Undergrowth, aspen saplings.
Good grass for grazing.
Mountainous land, 79.90 chs.

June 26, 1901.

June 27, 1901: At 8 h 0 m.a.m., l.m.t., I set off 59°07' N., on the lat.arc; 23° 22' N., on the decl.arc; and determine a true meridian with the solar at the cor. of secs. 4, 5, 32, and 33, on S, bdy. of Tp, heretofore described.

Thence I run

N.0° 03' W., bet. secs. 32 and 33.

Over mountainous land; through scattering timber; descend.

1.00 Bottom of canon, 10 ft. below sec.cor., course S.10°E.; ascend abruptly.

20.50 Foot of perpendicular cliff, 75 ft. high, bears N.10°W. and S.10°E. Thence over a series of ledges.

25.15 Top of ridge, 600 ft. above canon, bears E. and W.; descend abruptly.

30.50 Bottom of same canon, 500 ft. below ridge, course S.20° W.; ascend along side of canon.

40.00 Set a sandstone, 18x12x6 ins., 12 ins. in the ground, for sec.cor., marked π on W. face; from which
A pine, 8 ins. diam., bears S.45°E., 16 lks.
dist., marked π S.33,B.T.
A pine, 6 ins. diam., bears S.45°W., 60 lks.
dist., marked π S.32,B.T.

31

Subdivision of T. 19 S...R. 20 E.-Continued.

Chains	
65.00	Bottom of same canon, course S.10° E.; ascend .
75.80	Foot of perpendicular cliff 50 ft. high, bears E. and W.
76.00	Top of ridge, 800 ft. above canon, bears E. and W.; descend .
80.00	Set a sandstone, 20x14x8 ins., 15 ins. in the ground, for cor. of secs. 28, 29, 32, and 33, marked with 1 notch on S. and 4 notches on E. edges; from which <ul style="list-style-type: none"> . A mahogany , 8 ins. diam., bears N.45° E., 25 lks.dist., marked T.19 S., R.20 E., S.28, B.T. . A mahogany, 6 ins. diam., bears S.60° E., 70 lks.dist., marked T.19 S., R.20 E., S.33, B.T. . A cedar, 8 ins. diam., bears S.25° W., 40 lks. dist., marked T.19 S., R.20 E., S.32, B.T. . A mahogany, 8 ins. diam., bears N.15° W., 10 lks.dist., marked T.19 S., R.20 E., S.29, B.T. Land, mountainous.
	Soil, gravelly and rocky; 3rd and 4th rate.
	Timber; cedar and pinion pine and mahogany.
	Good grass for grazing.
	Mountainous land, 80.00 chs.
	June 27, 1901: At this cor. I set off 23° 21' N., on the decl. arc; and at 0 h 2 m p.m., I.m.t., observe the sun on the meridian, the resulting lat. is 39° 08' N.
	East, on a random line bet. secs. 28 and 33.
40.00	Set temp. \pm sec.cor.
80.04	Intersect N. and S. line, at the cor. of secs. 27, 28, 33, and 34.
	Thence I run
	West, on a true line bet. secs. 28 and 33 .
	Over mountainous land; through scattering timber; ascend over a series of ledges .
13.00	Top of ridge, 500 ft. above sec.cor., bears N. and S.; descend .

Subdivision of T.19 S., R.20 E.-Continued.

Chains

32.27 Top of perpendicular cliff, 50 ft. high, bears N. and S.

Note: Point for cor. will fall on very steep rocky side hill where it will be very difficult to perpetuate a cor. therefore at this point I

Set a sandstone, 14x10x6 ins., 2 ins. in the ground, for witness cor. to $\frac{1}{2}$ sec. cor., marked W.C. on W. face and $\frac{1}{2}$ on N. face; from which

A pinion pine, 10 ins. diam., bears N. 70° E., 50 lks. dist., marked W.C. $\frac{1}{4}$ S. 28, B.T.

A pinion pine, 12 ins. diam., bears S. 60° E., 55 lks. dist., marked W.C. $\frac{1}{4}$ S. 33, B.T.

39.00 Bottom of canon, 700 ft. below ridge, course S.; ascend abruptly over ledges and slide rock.

40.02 Point for cor. falls on rocky shale bed where it would be impossible to perpetuate a cor.

55.00 Top of ridge, 650 ft. above canon, bears N. and S.; descend.

80.04 The cor. of secs. 28, 29, 32, and 33.

Land, mountainous.

Soil, gravelly and rocky; 3rd and 4th rate.

Timber, scattering cedar and pinion pine.

Good grass for grazing.

Mountainous land, 80.04 chs.

June 27, 1901.

June 28, 1901: At 7 h 0 m a.m., l.m.t., I set off $39^{\circ}08'$ N., on the lat. arc; $23^{\circ}19'N.$, on the decl. arc; and determine a true meridian with the solar, at the cor. of secs. 28, 29, 32, and 33.

Thence I run

N. $0^{\circ}03'W.$, bet. secs. 28 and 29.

Over mountainous land; through scattering timber and scattering undergrowth; descend.

15.00 Bottom of canon, 200 ft. below sec. cor., course S. $10^{\circ}W.$,

Subdivision of T.19 S., R.20 E.-Continued.

Chains	ascend .
40.00	Set a sand coated limestone, 20x12x6 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; from which A pine, 10 ins. diam., bears N. 10° E., 70 lks. dist., marked $\frac{1}{4}$ S. 28, B.T. A cedar, 14 ins. diam., bears S. 5° W., 8' lks. dist., marked $\frac{1}{4}$ S. 29, B.T.
41.30	Divide ridge, 200 ft. above canon, bears N. 80° E. and S. 80° W.; descend .
53.00	Bottom of hollow, 150 ft. below ridge, course S.W.; ascend .
61.30	Top of ridge, 200 ft. above hollow, bears N. 30° E. and S. 30° W.; descend .
76.50	Bottom of canon, 200 ft. below ridge, course S. 30° W.; enter heavy cedar and pinion pine timber . Ascend .
80.00	Set a sandstone, 18x12x6 ins., 12 ins. in the ground, for cor. of secs. 20, 21, 28, and 29, marked with 2 notches on S. and 4 notches on E. edges; from which A pinion pine, 12 ins. diam., bears N. 50° E., 56 lks. dist., marked T. 19 S., R. 20 E., S. 21, B.T. A mahogany, 6 ins. diam., bears S. 60° E., 33 lks. dist., marked T. 19 S., R. 20 E., S. 28, B.T. A cedar, 14, ins. diam., bears S. 45° W., 35 lks. dist., marked T. 19 S., R. 20 E., S. 29, B.T. A cedar, 12 ins. diam., bears N. 45° W., 48 lks. dist., marked T. 19 S., R. 20 E., S. 20, B.T.
	Land, mountainous .
	Soil, gravelly and rocky; 3rd and 4th rate.
	Timber, cedar and pinion pine and mahogany.
	Undergrowth, oak and sage brush.
	Good grass for grazing.
	Mountainous or heavily timbered land, 80.00 chs.
	East, on a random line bet. secs. 21 and 28.

Subdivision of T.19 S., R.20 E.-Continued.

Chains

40.00 Set temp. $\frac{1}{4}$ sec.cor.

79.96 Intersect N. and S. line, 19 lks. S. of the cor. of secs.
21, 22, 27, and 28.

Thence I run

S. $89^{\circ} 52' W.$, on a true line bet. secs. 21 and 28.

Over mountainous land; through scattering timber
and scattering undergrowth; ascend over a series of
ledges.

39.98 Set a sandstone, 20x10x6 ins., 15 ins. in the ground, for
 $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N. face; from which

A pinion pine, 30 ins. diam., bears N. $5^{\circ} W.$, 43
lks. dist., marked $\frac{1}{4}$ S. 21, B.T.

A pinion pine, 15 ins. diam., bears S. $5^{\circ} E.$, 40
lks. dist., marked $\frac{1}{2}$ S. 28, B.T.

49.40 Top of ridge, 800 ft. above sec.cor., bears N.W. and S.E.;
descend.

78.70 Bottom of canon, 500 ft. below ridge, course S.W.; ascend.

79.96 The cor. of secs. 20, 21, 28, and 29.

Land, mountainous.

Soil, gravelly and rocky; 3rd and 4th rate.

Timber, cedar and pinion pine.

Undergrowth, sage and oak brush.

Good grass for grazing.

Mountainous land, 79.96 chs.

June 28, 1901: At this cor. I set off $23^{\circ} 18' N.$, on the
decl. arc; and at 0 h 3 m.p.m., l.m.t., observe the sun
on the meridian, the resulting lat. is $39^{\circ} 09' N.$

N. $0^{\circ} 03' W.$, bet. secs. 20 and 21.

Over mountainous land; through heavy timber; ascend
over ledges.

40.00 Set a sandstone, 18x12x4 ins., 12 ins. in the ground, for
 $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W. face; from which

A pinion pine, 12 ins. diam., bears N. $70^{\circ} E.$,
73 lks. dist., marked $\frac{1}{2}$ S. 21, B.T.

Subdivision of T.19 S., R.20 E.-Continued.

Chains	A pinion pine, 8 ins. diam., bears S.45°W., 12 lks. dist., marked \pm S.20, B.T.
43.00	Top of ridge, 300 ft. above sec.cor., bears N.30°E. and S.30°W.; descend abruptly over ledges.
60.00	Bottom of hollow, 600 ft. below ridge, course W.; ascend abruptly over ledges.
77.00	Top of divide ridge, between canons draining southerly and canons draining northerly, 700 ft. above hollow, bears N.W. and E.; descend. Leave timber.
80.00	Set a sandstone, 24x12x6 ins., 18 ins. in the ground, for cor.of secs.16,17,20, and 21, marked with 3 notches on S. and 4 notches on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.Pits impracticable. Land, mountainous. Soil, gravelly and rocky; 3rd and 4th rate. Timber, cedar, pinion pine, and mahogany. Good grass for grazing. Mountainous or heavily timbered land, 80.00 chs.

June 28, 1901.

June 29, 1901: At 7 h 2 m a.m., l.m.t., I set off $39^{\circ}10'$ N., on the lat.arc; $23^{\circ}17'$ N., on the decl.arc; and determine a true meridian with the solar, at the cor.of secs.16,17,20, and 21.

Thence I run

N. $89^{\circ}52'$ E., on a random line betsecs.16 and 21.

40.00 Set temp. \pm sec.cor.

80.06 Intersect N. and S.line, 14 lks.N., of the cor.of secs. 15,16,21, and 22.

Thence I run

S. $89^{\circ}58'$ W., on a true line betsecs.16 and 21.

Over mountainous land; through scattering timber and scattering undergrowth; ascend abruptly.

8.00 Top of ridge, 150 ft. above sec.cor., bears N. and S.; descend abruptly over ledges.

22.00 Bottom or canon, 600 ft. below ridge, course S. 20° E.;

Subdivision of T. 19 S., R. 20 E.-Continued.

Chains	leave ledges; ascend abruptly.
40.03	Set a sandstone, 20x10x8 ins., 15 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
44.50	Top of divide ridge, between canons draining southerly and canons draining northerly, 850 ft. above canon, bears N.E. and S.W.; descend.
61.75	Bottom of hollow, 300 ft. below ridge, course N.W.; ascend.
72.00	Top of ridge, 150 ft. above hollow, bears N. and S.; descend.
80.06	The cor. of secs. 16, 17, 20, and 21. Land, mountainous. Soil, sandy loam, gravelly and rocky; 2nd 3rd and 4th rate. Timber, scattering pine. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, 80.06 chs.
<hr/>	
N. 0° 03' W., bet. secs. 16 and 17.	
Over mountainous land; through dense undergrowth; descend.	
40.00	Set a sandstone, 24x10x5 ins., 18 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W. face; dig pits, 18x18x12 ins., N. and S. of stone, 3 ft. dist., and raise a mound of earth and stone, 4 ft. base, 2 ft. high, W. of cor.
65.00	Bottom of hollow, 350 ft. below sec.cor., course N. 60° E.; ascend.
80.00	Set a sandstone, 16x8x8 ins., 11 ins. in the ground, for cor. of secs. 8, 9, 16, and 17, marked with 4 notches on S. and 4 notches on E. edges; from which A pine, 12 ins. diam., bears S. 30° E., 85 lks.

Subdivision of T.19 S., R.20 E.-Continued.

Chains dist., marked T.19 S., R.20 E., S.16, E.T.
A long leaf pine, 3 ft. diam., bears N. 22° W., 60
lks. dist., marked T.19 S., R.20 E., S.8, E.T.
No other trees within limits; raise a mound of stone,
2 ft. base, 1½ ft. high, W. of cor. Fits impracticable.
Land, mountainous.
Soil, sandy loam; 2nd rate.
No timber.
Undergrowth, sage brush and oak brush.
Good grass for grazing.
Mountainous land, or land covered with dense under-
growth, 80.00 chs.
June 29, 1901: At this cor. I set off 23° 15' N., on the
decl. arc; and at 0 h 2 m p.m., l.m.t., observe the sun
on the meridian, the resulting lat. is 39° 10' N.

N. 89° 58' E., on a random line bet. secs. 9 and 16.

- 40.00 Set temp. \pm sec. cor..
- 80.10 Intersect N. and S. line ¼ lks. S., of the cor. of secs.
9, 10, 15, and 16.
Thence I run
S 89° 52' W. on a true line bet. secs. 9 and 16.
Over mountainous land; through scattering timber and
dense undergrowth; descend .
- 40.05 Set a sandstone, 18x14x8 ins., 12 ins. in the ground, for
 \pm sec. cor., marked $\frac{1}{2}$ on N. face; from which
An aspen, 8 ins. diam., bears N. 40° W., 50 lks.
dist., marked \pm S. 9, E.T.
A long leaf pine, 3 ft. diam., bears S. 45° E.,
220 lks. dist., marked \pm S. 16, E.T.
- 41.75 Bottom of hollow, 600 ft. below sec. cor., course N. 50° W.
Ascend .
- 49.80 Top of ridge, 200 ft. above hollow, bears N.W. and S.E.; ~
descend .
- 65.25 Creek, 2 lks. wide, 2 ins. deep, in bottom of Willow

Subdivision of T.19 S., R.20 E.-Continued.

Chains Creek Canon, 300 ft. below ridge, course N.20°E.; ascend.

- 80.10 The cor.of secs.8,9,16, and 17.

Land, mountainous.

Soil, sandy loam; 2nd rate.

Timber, pine and aspen.

Undergrowth, oak and sage brush.

Good grass for grazing.

Mountainous land, or land covered with dense undergrowth, 80.10 chs.

June 29, 1901.

July 1, 1901: At 7 h 3 m/a.m., l.m.t., I set off 39° 10' N., on the lat.arc; 23° 10' N., on the decl.arc; and determine a true meridian with the solar at the cor.of secs.8,9,16, and 17.

Thence I run

N.0° 03' W., bet. secs.8 and 9..

Over mountainous land; through scattering timber and scattering undergrowth; ascend over a rolling country.

40.00 Set a sandstone, 18x8x6 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W. face; from which

A pine, 6 ins. diam., bears N.30° E., 100 lks.

dist., marked $\frac{1}{2}$ S.9, B.T.

A pine, 38 ins. diam., bears S.30° W., 150 lks.

dist., marked $\frac{1}{2}$ S.8, B.T.

55.20 Top of ridge, 100 ft. above $\frac{1}{2}$ sec.cor., bears N.20° E. and S.20° W.; descend.

- 80.00 Set a sandstone, 18x9x7 ins., 12 ins. in the ground, for cor.of secs.4,5,8, and 9, marked with 5 notches on S. and 4 notches on E.edges; from which

A pine, 8 ins. diam., bears N.75° E., 130 lks.

dist., marked T.19 S., R.20 E., S.4, B.T.

No other trees within limits; raise a mound of stone, $\frac{1}{2}$ ft. base, $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

Land, mountainous.

Subdivision of T.19 S., R.20 E.-Continued.

Chains	Soil, sandy loam; 2nd rate. Timber, scattering pine and aspen . Undergrowth, oak and aspen saplings .. Good grass for grazing .. Mountainous land, 80.00 chs.
--------	---

N 39° 52' E. on a random line bet. secs. 4 and 9.

- 40.00 Set temp. \pm sec.cor.
- 80.00 Intersect N. and S. line, 10 lks. N. of the cor. of secs. 3, 4, 9, and 10.
Thence I run
S. 89° 56' W., on a true line bet. secs. 4 and 9.
Over mountainous land; through scattering timber and dense undergrowth; descend .
- 37.90 Creek, 10 lks. wide, 3 ins. deep, rapid current, rocky bottom, good water, in bottom of Willow Creek Canon, 600 ft. below sec.cor., course N. 30° E.; ascend .
- 40.00 Set a sandstone, 14x9x8 ins., 9 ins. in the ground, for \pm sec.cor., marked \pm on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
- 73.25 Top of ridge, 250 ft. above canon, bears N. and S.; descend .
- 80.00 The cor. of secs. 4, 5, 8, and 9.
Land, mountainous.
Soil, sandy loam; 2nd rate.
Timber, pine and aspen .
Undergrowth, oak and aspen saplings.
Good grass for grazing.
Mountainous land, or land covered with dense undergrowth, 80.00 chs.
- July 1, 1901: At this cor. I set off 23° 08' N., on the decl. arc; and at 0 h 3 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39° 11' N.

Subdivision of T.19 S., R.20 E.-Continued.

40

Chains	N. $0^{\circ} 03' W.$, on a random line bet. secs. 4 and 5.
40.00	Set temp. $\frac{1}{2}$ sec.cor.
79.90	Intersect N.bdy.or Tp., 10 lks. East of the cor.of secs. 4, 5, 32, and 33, heretofore described. Thence I run $S.0^{\circ} 07' E.$, on a true line bet. secs. 4 and 5. Over mountainous land; through scattering timber and dense undergrowth; descend.
35.00	Creek, 6 lks. wide, 3 ins. deep, in branch of Willow Creek Canon, 250 ft. below sec.cor., course N.E.; ascend.
39.90	Set a sandstone, 18x8x6 ins., 12 ins. in the ground, $\frac{1}{2}$ or $\frac{1}{4}$ sec.cor., marked $\frac{1}{2}$ on W.face; from which An aspen, 6 ins. diam., bears S. $25^{\circ} E.$, 130 lks. dist., marked $\frac{1}{4}$ S.4, B.T. A pine, 8 ins. diam., bears S. $80^{\circ} W.$, 125 lks. dist., marked $\frac{1}{4}$ S.5, B.T.
79.90	The cor.of secs. 4, 5, 8, and 9. Land, mountainous. Soil, sandy loam; 2nd rate. Timber, scattering pine and aspen. Undergrowth, sage oak and aspen saplings. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.90 chs.

July 1, 1901.

July 2, 1901: At 8 h 2 m a.m., 1.m.t., I set off $39^{\circ} 07'$. N., on the lat.arc; $23^{\circ} 05' N.$, on the decl.arc; and determine a true meridian with the solar at the cor.of secs. 5, 6, 31, and 32, on S.bdy.or Tp., heretofore described.

Thence I run

$N.0^{\circ} 03' W.$, bet. secs. 31 and 32.

Over mountainous land; through scattering timber; descend.

41
Subdivision or T.19 S., R.20 E. - Continued.

Chains

10.00 Foot of descent, 100 ft. below sec.cor., bears N.W. and S.E.; enter bottom of Thompsons Canon,

30.00 Wash, 20 lks. wide, in bottom of canon, course S.20° E.; leave canon bottom; ascend.

32.74 South edges or ledges where it will be impossible to chain, therefore at this point I set a sandstone, 18x10x6 ins., 12 ins. in the ground, for witness cor. to sec.cor., marked W.C. on N., and $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

In order to determine distance to top of mountain I set a flag on line on top of mountain, then measure a base ~~5.00 chs.~~ 5.00 chs. from which flag bears N.10°03' E. I compute the distance as follows:

$\log 5.00 = 0.698970$

$\log \cot 10^\circ 03' = 10.751470$

$\log \text{dist} = 1.450440 = 28.21 \text{ chs.}$

$32.74 + 28.21$ makes

60.95 Top of ascent, 1000 ft. above canon, leave ledges, bears N.W. and S.E.; thence over level mesa.

70.30 Leave mesa, bears E. and W.; descend over ledges.

75.00 Bottom of canon, 800 ft. below mesa, course N.; ascend abruptly over ledges.

80.00 Set a sandstone, 18x9x8 ins., 12 ins. in the ground, for cor. or secs. 29, 30, 31, and 32, marked with 1 notch on S. and 5 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

Land, mountainous.

Soil, gravelly and rocky; 3rd and 4th rate.

Timber, cedar and pinion pine.

Good grass for grazing.

Mountainous land, 80.00 chs.

July 2, 1901: At the noon hour the sky is overcast and solar observations are impossible.

42

Subdivision of T.19 S., R.20 E.-Continued.

Chains	East, on a random line bet. secs. 29 and 32.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.90	Intersect N. and S. line, 5 lks. N. of the cor. of secs. 28, 29, 32, and 33, Thence I run N. $89^{\circ} 58' W.$, on a true line bet. secs. 29 and 32. Over mountainous land; through scattering timber; descend.
4.00	Bottom of canon, 200 ft. below sec. cor., course S. $20^{\circ} W.$; ascend.
14.75	Divide ridge, 400 ft. above canon, bears N. $20^{\circ} E.$ and S. $20^{\circ} W.$; descend over a series of ledges.
30.00	Top of perpendicular ledge, 100 ft. high, bears N. and S. Note:-The point for $\frac{1}{4}$ sec. cor. will fall in a rock slide or boulders and shale where it will be impossible to perpetuate a cor. therefore at this point I Set a sandstone, 20x14x8 ins., 15 ins. in the ground, for witness cor. to $\frac{1}{4}$ sec. cor., marked W.C. on W., and $\frac{1}{4}$ on N. face; from which A pinion pine, 10 ins. diam., bears N. $60^{\circ} W.$, 55 lks. dist., marked W.C. $\frac{1}{4}$ S. 29, B.T. A pinion pine, 10 ins. diam., bears S. $70^{\circ} W.$, 60 lks. dist., marked W.C. $\frac{1}{4}$ S. 32, B.T.
39.95	Thence descend very abruptly over ledges, boulders and shale rock.
70.00	Point for $\frac{1}{4}$ sec. cor. falls in boulders and rock slide where it is impossible to perpetuate a cor.
79.90	Trail in bottom of Thompson's Canon, 1000 ft. below ridge, course S. $5^{\circ} E.$; ascend abruptly over high ledges.
	The cor. or secs. 29, 30, 31, and 32. Land, mountainous. Soil, gravelly and rocky; 3rd and 4th rate. Timber, cedar and pinion pine. Good grass for grazing. Mountainous land, 79.90 chs.

July 2, 1901.

Subdivision of T.19 S., R.20 E.-Continued.

Chains	July 3, 1901: At 7 h 2 m a.m., l.m.t., I set off $39^{\circ}08'N.$ on the lat.arc; $23^{\circ}01'W.$, on the decl.arc; and determine a true meridian, with the solar, at the cor.of secs. 29, 30, 31, and 32. Thence I run West on a random line bet.secs. 30 and 31.
40.00	Set temp. $\frac{1}{4}$ sec.cor.
79.70	Intersect W.bdy.of Tp., at the cor.of secs. 25, 30, 31, and 36, heretofore described. Thence I run East, on a true line bet.secs. 30 and 31. Over mountainous land; through scattering timber and scattering undergrowth; ascend abruptly over a series of high ledges .
18.00	Top of ridge, 450 ft. above sec.cor., bears N.E. and S.W.; descend abruptly over ledges .
39.00	Bottom of branch of Thompson's Canon, 900 ft. below ridge, course S. $30^{\circ}E.$; ascend abruptly over ledges .
39.70	Set a sandstone, 18x9x7 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.Pits impracticable.
62.00	Top of ridge, 900 ft. above canon, bears N.W. and S.E.; descend abruptly over ledges .
79.70	The cor.of secs. 29, 30, 31, and 32. Land, mountainous. Soil, gravelly and rocky; 3rd and 4th rate. Timber, scattering cedar and pinion pine. Undergrowth, sage and oak brush. Good grass for grazing. Mountainous land, 79.70 chs.

N. $0^{\circ}03'W.$, bet.secs. 29 and 30 .

Over mountainous land; through scattering timber and scattering undergrowth; ascend abruptly over ledges .

Subdivision of T.19 S., R.20 E.-Continued.

Chains

- 2.50 Top of ridge, 80 ft. above sec.cor., bears E. and W.; descend abruptly over ledges.
- 15.00 Bottom or branch of Thompson's Canon, 1000 ft. below ridge, course S.E.; thence ascend gradually in bottom of canon. Leave ledges.
- 20.00 Leave canon, course S.; heads N. 10° W., about 80.00 chs. dist.; ascend gradually along east side of canon.
- 40.00 Set a sandstone, 18x10x6 ins., 12 ins. in the ground, for sec.cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
- 80.00 Set a limestone, 30x15x15 ins., 22 ins. in the ground, for cor. or secs. 19, 20, 29, and 30, marked with 2 notches on S. and 5 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

Land, mountainous.

Soil, gravelly and rocky; 3rd and 4th rate.

Timber, scattering cedar and pinion pine.

Undergrowth, sage brush and oak..

Good grass for grazing.

Mountainous land, 80.00 chs.

July 3, 1881: At this cor. I set off $23^{\circ}0'N.$, on the decl. arc; and at 6 h 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $39^{\circ}09'N.$

S. $89^{\circ}58'E.$, on a random line bet. secn. 20 and 29.

40.00 Set temp.t sec.cor.

70.00 Intercept N. and S. line, 12 lks. S. of the cor. or sec. 20, 21, 28, and 29.

Thence I run

S. $89^{\circ}57'$., on a true line bet. secn. 20 and 29.

Over mountainous land; through scattering timber and scattering undergrowth; ascend.

Subdivision of S. 19 S. E. 20 E.-Continued.

Chains	
23.95	Top of ridge, 500 ft. above sec.cor., bears N. 30° E. and S. 30° W.; descend abruptly over ledges .
39.98	Set a sandstone, 24x15x12 ins., 18 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N face; from which A pine, 10 ins. diam., bears N. 53° E., 51 lks. dist., marked $\frac{1}{2}$ S. 20, B.T. A pine, 4 ins. diam., bears S. 2° 30' W., 55 lks. dist., marked $\frac{1}{2}$ S. 29, B.T.
41.80	Trail, in bottom of Thompson's Canon, 800 ft. below ridge, course S. 15° W.; ascend abruptly over ledges .
64.00	Top of ridge, 900 ft. above canon, bears N. 5° E. and S. 5° W.; descend over ledges about 10 ft. high .
79.96	The cor.of secs. 19, 20, 29, and 30. Land, mountainous. Soil, gravelly and rocky; 3rd and 4th rate. Timber, cedar and pinion pine. Undergrowth, sage brush and oak. Good grass for grazing. Mountainous land, 79.96 chs..

July 3, 1901.

40.00	Set temp. $\frac{1}{2}$ sec.cor.
79.80	Intersect W.bdy.or Tp., at the cor.of secs. 19, 24, 25, and 30, heretore described. Thence I run East, on a true line bet.secs. 19 and 30. Over mountainous land; through scattering timber and dense undergrowth; ascend .

Subdivision of T. 19 S., R. 20 E. -Continued.

Chains	
20.00	Top of ridge, 250 ft. above sec.cor., bears N.20°E. and S.20°W.; descend abruptly over ledges.
39.80	Set a sandstone, 18x10x8 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
43.00	Top of perpendicular ledge, 100 ft. high, bears N. and S.
49.00	Bottom of canon, 600 ft. below ridge, course S.30°W.; leave ledges; ascend abruptly.
59.50	Top of ridge, 300 ft. above canon, bears N. and S.; descend abruptly.
70.00	Enter ledges, bears N. and S.
77.00	Bottom of canon, 600 ft. below ridge, course S.; leave ledges; ascend.
79.80	The cor. or secs. 19, 20, 29, and 30. Land, mountainous. Soil, gravelly and rocky; 3rd and 4th rate. Timber, cedar and pinion pine. Undergrowth, sage brush and oak brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 79.80 chs.
	July 5, 1901: At this cor. I set off 22° 50' N., on the decl. arc; and at 0 h 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39° 09' N.

N.0°03'W., bet. secs. 19 and 20.

Over mountainous land; through scattering timber and scattering undergrowth; ascend.

- 35.00 Top of ridge, 800 ft. above sec.cor., bears N.70°W. and S.70°E.; ascend.
- 38.00 Trail from Thompson's to top of mountain, bears N. and W.
- 40.00 Set a sandstone, 18x12x7 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of

Subdivision of T.19 S., R.20 E.-Continued.

Chains	stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. A corral bears East, about 30.00 chs. dist. in bottom of Thompson's Canon.
80.00	Head of Thompson's Canon, 100 ft. below ridge, course S.E.: Set a sand coated limestone, 18x10x6 ins., 12 ins. in. the ground, for cor. of secs. 17, 18, 19, and 20, marked with 3 notches on S. and 5 notches on E. edges; from which An aspen, 9 ins. diam., bears N. 45° E., 50 lks. dist., marked T.19 S., R.20 E., S.17, B.T. An aspen, 6 ins. diam., bears S. 50° E., 25 lks. dist. marked T.19 S., R.20 E., S.20, B.T. An aspen, 8 ins. diam., bears S. 45° W., 20 lks. dist., marked T.19 S., R.20 E., S.19, B.T. An aspen, 11 ins. diam., bears N. 40° W., 45 lks. dist., marked T.19 S., R.20 E., S.18, B.T. Land, mountainous. Soil, gravelly and rocky; 3rd and 4th rate. Timber, cedar and pinon pine, and aspen. Undergrowth, sage and oak brush. Good grass for grazing. Mountainous land, 80.00 chs.

	N. 89° 57' E., on a random line bet. secs. 17 and 20.
40.00	Set temp. & sec. cor.
80.00	Intersect N. and S. line, 7 lks. N. of the cor. or secs. 16, 17, 20, and 21. Thence I run. West, on a true line bet. secs. 17 and 20. Over mountainous land; through dense undergrowth and scattering timber; ascend.
3.96	Top of divide ridge, between canons draining southerly and canons draining northerly, 100 ft. above sec. cor., bears N.W. and S.E.; descend abruptly over ledges.

Subdivision of T. 19 S., R. 20 E. -Continued.

Chains	
28.00	Bottom of canon, 800 ft. below ridge, course S.; ascend.
40.00	Set a sandstone, 18x9x8 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N. race; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticalable.
49.61	Top of ridge, 900 ft. above canon, bears N. and S.; descend.
80.00	The cor. or secs. 17, 18, 19, and 20. Land, mountainous. Soil, gravelly and rocky; 3rd and 4th rate. Timber, cedar and pinon pine. Undergrowth, sage and oak brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.

July 5, 1901.

40.00	Set temp. $\frac{1}{4}$ sec.cor.
79.88	Intersect W.bdy.of Tp., 14 lks.N. of the cor. of secs. 13, 18, 19, and 24, heretofore described. Thence I run $N.89^{\circ}54'E.$, on a true line bet. secs. 18 and 19. Over mountainous land; through scattering timber and scattering undergrowth; descend.
10.00	Bottom of hollow, 250 ft. below sec.cor., course S.; ascend.
18.00	Top of ridge, 300 ft. above hollow, bears N. and S.; descend.
39.88	Set a sandstone, 18x12x8 ins., 12 ins. in the ground,

Subdivision of T. 19. S., R. 20. E.-Continued

Chains	for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
42.00	Bottom of canon, 500 ft. below ridge, course S. 3° E.; ascend abruptly . . .
62.00	Top of ridge, 800 ft. above canon, bears N. and S.; descend .
66.00	Trail from Thompson's Canon to top of mountain, bears N. and S..
79.86	Bottom of hollow, course S.E. The cor.of secs.17,18,19, and 20. Land, mountainous . Soil, gravelly and rocky; 3rd. and 4th rate. Timber, cedar and pinion pine. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, 79.88 chs. July 6, 1901: At the noon hour the sky is overcast and solar observations are impossible.

N. $0^{\circ}03'W.$, bet.secs.17 and 18.

Over mountainous land; through scattering timber and dense undergrowth; ascend abruptly .

13.53	Top of divide ridge between canons draining northerly and canons draining southerly, 700 ft. above sec.cor., bears E. and W.; descend gradually .
25.50	Trail, bears N. 20° E. and S. 20° W.
40.00	Set a sandstone, 16x10x8 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; dig pits, 18x18x12 ins., N. and S. of stone, 3 ft. dist., and raise a mound of earth, 4 ft. base, $2\frac{1}{2}$ ft. high, W. of cor. Bottom of hollow, 100 ft. below ridge, course E.; ascend gradually .
55.00	Top of ridge, 150 ft. above hollow, bears E. and W.; descend .

Subdivision of T.19 S., R.20 E.-Continued.

Chains

- 80.00 Set a sandstone, 16x9x6 ins., 11 ins. in the ground, for cor. of secs. 7, 8, 17, and 18, marked with 4 notches on S. and 5 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

Land, mountainous.

Soil, black loam and sandy; 1st and 2nd rate.

Timber, cedar, pinion pine, and aspen.

Undergrowth, oak and sage.

Good grass for grazing.

Mountainous land, or land covered with dense undergrowth, 80.00 chs.

July 6, 1901.

July, 8, 1901; At 7 h 2 m a.m., l.m.t., I set off $39^{\circ}10'$ N., on the lat. arc; $22^{\circ}33'N.$, on the decl. arc; and determine a true meridian, with the solar, at the cor. of secs. 7, 8, 17, and 18.

Thence I run

East, on a random line bet. secs. 8 and 17.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.20 Intersect N. and S. line, 24 lks. S. of the cor. of secs. 8, 9, 16, and 17.

Thence I run

S. $89^{\circ}50'W.$, on a true line bet. secs. 8 and 17.

Over mountainous land; through scattering timber and dense undergrowth; ascend.

22.00 Top of ridge, 200 ft. above sec. cor., bears N. $10^{\circ}E.$ and S. $10^{\circ}W.$; descend.

40.10 Set a sandstone, 14x8x5 ins., 9 ins. in the ground, for sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

44.60 Creek, 2 lks. wide, 1 inch deep, in bottom of hollow, 100

Subdivision of T.19 S., R.20 E., Continued .

51

Chains	ft. below ridge, course N.10° E.; ascend .
58.75	Top of ridge, 200 ft. above hollow, bears N. and S.; descend .
65.00	Bottom of cañon, 200 ft. below ridge, course N ;ascend .
71.00	Trail from Thompsons to top of mountain, bears N.W. and S.
80.20	The cor.of secs.7,8,17, and 18. Land, mountainous .
	Soil, sandy loam and gravelly; 2nd and 3rd rate.
	Timber, pine and aspen .
	Undergrowth, oak and sage .
	Good grass for grazing.
	Mountainous land, or land covered with dense under-growth, 80.20 chs.
	S.89° 54' W., on a random line bet.secs.7 and 18.
40.00	Set temp. $\frac{1}{4}$ sec.cor.
80.04	Intersect W.bdy.of Tp., 10 lks.S.of the cor.of secs. 7,12,13, and 18, heretofore described .
	Thence I run
	N.89° 58' E., on a true line bet.secs.7 and 18.
	Over mountainous land; through dense undergrowth; des-cend .
1.00	Bottom of hollow, 10 ft. below sec.cor., course S.W.; ascend .
27.00	Top of ridge, 300 ft. above hollow, bears N.E. and S.W.; descend .
40.04	Set a sandstone, 18x12x10 ins., 12 ins.in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft.base, 1 $\frac{1}{2}$ ft.high, N.of cor.Pits impractic-able .
70.00	Bottom of hollow, 250 ft. below ridge, course N.E.; as-cend .
77.50	Top of spur, 100 ft . above hollow, bears N.E. and S.W.; Descend .
80.04	The cor.of secs.7,8,17, and 18. Land, mountainous.

Subdivision of T.19 S., R.20 E.-Continued .

Chains Soil, sandy loam; 2nd rate .
No timber.
Undergrowth, oak and sage.
Good grass for grazing.
Mountainous land, or land covered with dense under-growth, 80.04 chs.
July 8, 1901: At the noon hour the sky is overcast and solar observations are impossible.

N. 0° 03' W., bet. secs. 7 and 8.
Over mountainous land; through dense undergrowth and scattering timber ; descend .

0.75 Bottom of hollow, course E.; ascend .

2.50 Top of spur, 25 ft. above hollow, bears N.E. and S.W.; descend .

10.00 Creek, 2 lks. wide, 1 inch deep, in hollow, 100 ft. below spur, course N.E. A small spring bears West about 4.00 chs. dist.; Trail in hollow, bears N.W. and S.E.; ascend .

40.00 Set a sandstone, 14x12x8 ins., 9 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable..

80.00 Set a sandstone, 20x12x5 ins., 15 ins. in the ground, for cor. of secs. 5, 6, 7, and 8, marked with 5 notches on S. and 5 notches on E. edges; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

Land, mountainous.
Soil, sandy loam; 2nd rate.
Timber, pine and aspen.
Undergrowth, sage and oak and maple.
Good grass for grazing.
Mountainous land, or land covered with dense under-growth, 80.00 chs.

July 8, 1901.

Subdivision of T.19 S., R.20 E.-Continued.

- Chains July 9, 1901: At 7 h 2 m a.m., l.m.t., I set off $39^{\circ} 17'$ N., on the lat. arc; $22^{\circ} 26'$ N., on the decl. arc; and determine a true meridian, with the solar, at the cor. of secs. 5, 6, 7, and 8.
- Thence I run
N. $89^{\circ} 50'$ E., on a random line bet. secs. 5 and 8.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 80.44 Intersect N. and S. line, 12 lks. N., or the cor. of secs. 4, 5, 8, and 9.
- Thence I run
S. $89^{\circ} 55'$ W., on a true line bet. secs. 5 and 8.
Over mountainous land; through scattering timber and dense undergrowth; descend.
- 30.00 Branch of Willow Creek, 6 lks. wide, 3 ins. deep, in bottom of canon, 300 ft. below sec. cor., course N. 20° E.
Ascend.
- 40.22 Set a sandstone, 14x12x8 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{2}$ on N. face; from which:
An aspen, 6 ins. diam., bears N., 18 lks. dist., marked $\frac{1}{2}$ S. 5, B.T.
An aspen, 5 ins. diam., bears S., 14 lks. dist., marked $\frac{1}{2}$ S. 8, B.T.
- 80.44 The cor. of secs. 5, 6, 7, and 8.
Land, mountainous.
Soil, sandy loam; 2nd rate.
Timber, pine and aspen.
Undergrowth, sage and oak and aspen saplings.
Good grass for grazing.
Mountainous land, or land covered with dense undergrowth, 80.44 chs.
-
- S. $89^{\circ} 58'$ W., on a random line bet. secs. 6 and 7.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 80.00 Intersect W. bdy. of Tp., at the cor. of secs. 1, 6, 7, and 12, heretofore described.

Subdivision of T.19 S., R.20 E.-Continued.

Chains	Thence I run N.89° 58'E., on a true line bet. secs. 6 and 7. Over mountainous land; through dense undergrowth and scattering timber; ascend.
17.50	Top of divide ridge, between canons draining northerly and canons draining southerly, 450 ft. above sec.cor., bears N. and S.; descend.
38.50	Creek, 2 lks. wide, 2 ins. deep, in bottom of hollow, 350 ft. below ridge, course S.E.; Trail in bottom. Ascend.
40.00	Set a sandstone, 16x9x6 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N. face; from which An aspen, 8 ins. diam., bears N.45°W., 15 lks. dist., marked $\frac{1}{4}$ S.6,B.T. An aspen, 6 ins. diam., bears S.45°W., 10 lks. dist., marked $\frac{1}{4}$ S.7,B.T.
45.00	Top of ridge, 100 ft. above hollow, bears N.20°W. and S.20°E.; descend.
65.00	Creek, 5 lks. wide, 1 inch deep, in bottom of hollow, 150 ft. below ridge, course N.45°E.; ascend.
75.00	Top of ridge, 400 ft. above canon, bears N.E. and S.W.; descend.
80.00	The cor. of secs. 5, 6, 7, and 8. Land, mountainous. Soil, sandy loam; 2nd rate. Timber, cedar and pine, and aspen. Undergrowth, sage, oak, and aspen saplings. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	July 9, 1901: At this cor. I set off 22° 24' N., on the decl. arc; and at 0 h 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39° 11' N.
	N.0° 03' W., on a random line bet. secs. 5 and 6.
40.00	Set temp. $\frac{1}{4}$ sec.cor.

Subdivision of T.19 S., R.20 E.-Continued.

Chains	
79.80	Intersect N.bdy.of Tp.20 lks. W. cor. of secs.5,6,31, and 32, heretofore described. Thence I run S.0°12' E., on a true line bet. secs.5 and 6. Over mountainous land; through scattering timber and dense undergrowth; Descend .
1.00	Bottom of hollow, 10 ft. below sec.cor., course S.E.; ascend .
9.00	Top of ridge, 150 ft. above hollow, bears E. and W.;des- cend .
18.00	Bottom of hollow, 75 ft. below ridge, course E.;ascend .
28.00	Top of ridge, 75 ft. above hollow, bears E. and W.;des- cend .
39.80	Set a sandstone, 20x10x5 ins., 15 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; from which An aspen, 5 ins. diam., bears S.85 °E., 72 lks. dist., marked $\frac{1}{2}$ S.5,B.T. An aspen, 4 ins. diam., bears S.88°W., 125 lks. dist., marked $\frac{1}{2}$ S.6,B.T.
61.50	Creek, 2 lks. wide, 2 ins. deep, in bottom or canon, 200 ft. below ridge, course N.80°E.;ascend .
76.85	Top of ridge, 600 ft. above canon, bears N.E. and S.W.; descend .
79.80	The cor.of secs.5,6,7, and 8. Land, mountainous . Soil, sandy loam; 2nd rate. Timber, cedar , pine, and aspen. Undergrowth, sage, oak, and aspen saplings. Good grass for grazing. Mountainous land, or land covered with dense under- growth, 79.80 chs.

July 9, 1901.

General Description .

This township is very rough south of the main divide

51

Subdivision of T.19 S., R.20 E. -Continued.

Chains	<p>ridge which runs through the township from east to west; and north of the divide ridge the country is more rolling.</p> <p>The soil of the part of the township south of the divide ridge is gravelly and rocky; 3rd and 4th rate; and that part of the township north of the divide ridge is mostly sandy loam 2nd rate.</p> <p>Water is very scarce in the southern part of the township and very plentiful in the northern part.</p> <p>There are no settlers in the township.</p> <p>There is no mineral in the township.</p> <p>There is a spring in sec. 1C, not seen from line.</p> <p>The township is mainly valuable for grazing purposes.</p> <p>The triangulation point of the United States Geological survey known as "Culmination", supposed to be in the Northwest corner of this township could not be found.</p>
--------	--


Andrew J. Stewart Jr.
S. Deputy Surveyor.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by _____, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of _____ showing the respective capacities in which they acted:

S. J. S., Chainman.

S. J. S., Chainman.

S. J. S., Moundman.

S. J. S., Moundman.

S. J. S., Axman.

S. J. S., Axman.

S. J. S., Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted _____, United States Deputy Surveyor, in surveying all those parts or portions of the _____ of the _____

meridian, _____ of _____, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for _____

S. J. S., Chainman.

S. J. S., Chainman.

S. J. S., Moundman.

S. J. S., Moundman.

S. J. S., Axman.

S. J. S., Axman.

S. J. S., Flagman.

Subscribed and sworn to before me this _____
day of _____, 189 }



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, _____, United States Deputy Surveyor, solemnly swear that, in pursuance of a contract received from United States Surveyor General for _____, bearing date of _____ day of _____, 189_____, I have well, faithfully, and truly, in my proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for _____, the Manual of Surveying Instructions, and the laws of United States, surveyed all those parts or portions of _____.

_____ of the _____ meridian, in the _____ of _____, which are represented in foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for _____ and in the specific manner described in the field notes, and the foregoing are the original field notes of such survey; and should any fraud be detected, I will incur the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

[Signature] *S. K.* *D. W.* *United States Deputy Surveyor.*

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 189 }



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

[Signature] *Salt Lake City, Utah March 19 1903.*
The foregoing field notes of the survey of _____, _____
[Signature] *Township 19 South Range 29 East of the Salt Lake Meridian, Meridian, Idaho.*

executed by *[Signature]* *Andrew J. Keenan Jr.*, dated *[Signature]* *Dec 12 1903*, 189_____, having critically examined, and the necessary corrections and explanations made, the said field notes, and surveys they describe, are hereby approved.

[Signature] *Edward H. Anderson*
United States Surveyor Gen.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

United States Surveyor Gen.

BLANK

PAGE

BLANK

PAGE

FIELD NOTES

OF THE SURVEY OF THE

GREEN RIVER GUIDE MERIDIAN

through

Townships No. 18 South

Between Ranges Nos. 20 and 21 East,

Of the Salt Lake Base and Meridian,

in the STATE OF UTAH.

AS SURVEYED BY

Andrew J. Stewart Jr., United States Deputy Surveyor,

Under his Contract No. 243, dated April 12, 1901, 1800

Survey commenced July 10, 1901, 1800

Survey completed July 12, 1901, 1800

6-101

g. m. night 6-00-00.

NAMES AND DUTIES OF ASSISTANTS.

..... William Matson Chainman

..... Harvey M. Cluff Chainman

..... William Andrews Chainman

..... Arthur Wilde Chainman

..... Omero Marriotti Axman

..... Victor D. Gram Flagman

To preliminary affidavits see last A. J. 205 Rec'd

INDEX DIAGRAM.

Township _____, *Range* _____

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Meanders Page _____

PRELIMINARY OATHS OF ASSISTANTS.

We,

, and

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level said chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we may be measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

, Chainmen

, Chainmen

Subscribed and sworn to before me this }
day of , 189 }

SEAL

We,

and

do solemnly swear that we will well and truly perform the duties of martenmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

, Martenmen

, Martenmen

Subscribed and sworn to before me this }
day of , 189 }

SEAL

We,

and

do solemnly swear that we will well and truly perform the duties of axemen in the establishment of corner and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

, Axemen

, Axemen

Subscribed and sworn to before me this }
day of , 189 }

SEAL

I, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

, Flagman

Subscribed and sworn to before me this }
day of , 189 }

SEAL

Tiver Guide Meridian, Through Tp. 18 South, Between Ranges 20 and 21 E.

Survey commenced July 10, 1901, and executed with a W. and J. E. Gurley light mountain transit, No. 1, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other reading to single minutes of arc; which is also the least count of the latitude and declination arcs. The instrument was examined, tested on the true meridian at Salt Lake City, found correct, and was approved by the surveyor general for Utah, on May 29, 1901. I examine the adjustments of the instrument and correct the level and collimation errors, then, to test the solar apparatus by comparing its indications resulting from solar observations made during p.m. and a.m. hours, with a true meridian established by observation on Polaris, I proceed as follows: At the cor. of Tps. 18 and 19 S., Rs. 20 and 21 E., heretofore described, latitude $39^{\circ}12'N.$, longitude $109^{\circ}41'W.$, I set off $39^{\circ}12'N.$, on the lat. arc; $22^{\circ}16'N.$, on the decl. arc; and at 3 h. 0 m p. m., l.m.t., determine a true meridian with the solar, and mark a point thereof on a stone firmly set in the ground, 5.00 chs. N. of the cor.

July 10, 1901.

July 11, 1901: At 0 h $09'$ m a.m., l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual, and mark a point in the line thus determined on a wooden plug driven in the ground, 5.00 chs. N. of our station..

At 6 h 30 m a.m., l.m.t., I lay off the azimuth of Polaris $1^{\circ}34.4'$ to the west, and mark the true meridian thus determined, by cutting a small groove in the stone, already set 5.00 chs. N. of the cor.; on which the true meridian falls 0.42 east of the mark determined with the solar.

At 7 h 0 m a.m., l.m.t., I set off $39^{\circ}12'N.$, on the lat.

Green River Guide Meridian, Through Tp. 18 S., etc.; Continued.

Chains	arc; $22^{\circ} 18' N.$, on the accl. arc; and mark a point in the true meridian thus determined, by cutting a cross in the stone already set 5.00 chs. N. of the cor.; this mark falls 0.36 ins. east of the true meridian established by observation on Polaris. The solar apparatus by p.m. and a.m. observations defines positions for true meridians, respectively about $0^{\circ} 22''$ west and $0^{\circ} 19''$ east of the true meridian established by observation on Polaris; therefore I conclude that the adjustments of the instrument are satisfactory. The magnetic bearing of the true meridian at 7 h 3 m a.m., is $15^{\circ} 44.3'$ to the west, the angle thus determined reduced by the table page 100 of the Manual, gives the mean mag. decl. $15^{\circ} 38' E.$ From the cor. of Tps. 18 and 19 S., Rs. 20 and 21 E., I run North, bet. secs. 31 and 36. Over mountainous land, through scattering timber; descend.
4.50	Bottom of hollow, 100 ft. below Tp. cor., course W.; ascend.
18.90	Top of ridge, 500 ft. above hollow, bears E. and W.; descend.
30.00	Bottom of hollow, 200 ft. below ridge, course W.; ascend. Difference between measurements of 40.00 chs., by two sets of chainmen, is 4 lks.; position of middle point By 1st set 39.98 chs. By 2nd set 40.02 chs.; the mean of which is
40.00	Set a sandstone, 18x10x6 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; from which A pine, 12 ins. diam., bears N. $36^{\circ} E.$, 60 lks. dist., marked $\frac{1}{2}$ S. 31, B.T. A pine, 14 ins. diam., bears S. $29^{\circ} W.$, 35 lks. dist., marked $\frac{1}{2}$ S. 36, B.T.

Green River Guide Meridian, through Tp. 18 S., etc.-Continued.

Chains	
52.00	Top of ridge, 400 ft. above hollow, bears N.W. and S.E.; descend. Difference between measurements of 80.00 chs., by two sets of chainmen, is 10 lks.; position of middle point: By 1st set 79.95 chs. By 2nd set 80.05 chs.; the mean of which is
80.00	Set a sandstone, 20x12x10 ins., 15 ins. in the ground, for cor. of secs. 25, 30, 31, and 36, marked with 5 notches on N. and 1 notch on S. edges; from which An aspen, 8 ins. diam., bears N. 26° E., 105 lks. dist., marked T. 18 S., R. 21 E., S. 30, B.T. A pine, 14 ins. diam., bears S. 21° W., 108 lks. dist., marked T. 18 S., R. 20 E., S. 36, B.T. No other trees within limits; raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, sandy loam; 2nd rate. Timber, pine and aspen. Good grass for grazing. Mountainous land, 80.00 chs.

North, bet. secs. 25 and 30.

Over mountainous land; through scattering timber; descend.

20.00	Creek, 10 lks. wide, 6 ins. deep, rapid current, sandy bottom, in bottom of Sho. Canon, 50 ft. below sec. cor., course N. 55° E.; ascend. Difference between measurements of 40.00 chs. by two sets of chainmen, is 12 lks.; position of middle point By 1st set 39.94 chs. By 2nd set 40.06 chs.; the mean of which is
40.00	Set a sandstone, 16x10x8 ins., 11 ins. in the ground, for 2 sec. cor., marked ½ on W. face; and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impractic-

Green River Guide Meridian, through Tp. 18 S., etc. -Cont.

Chains	able.
47.80	Foot of perpendicular ledge, 25 ft. high, bears E. and W.
65.00	Top of ridge, 300 ft. above canon, bears E. and W.; descend.
70.00	Bottom of hollow, 400 ft. below ridge, course E.; ascend.
	Difference between measurements of 80.00 chs., by two sets of chainmen; is 8 lks.; position of middle point
	By 1st set 79.96 chs.
	By 2nd set 80.04 chs.; the mean of which is
80.00	Point for cor. falls on stationary boulder, 16x12x8 ft. on which
	I cut a cross at the exact cor. point, for cor. of secs. 19, 24, 25, and 30, marked with 4 notches on N. and 2 notches on S. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	Land, mountainous.
	Soil, sandy loam and gravelly; 2nd and 3rd rate.
	Timber, pine and aspen.
	Good grass for grazing.
	Mountainous land, 80.00 chs.
	July 11, 1901: At this cor. I set off $22^{\circ}09'N.$, on the decl. arc; and at 6 h 3 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $39^{\circ}14'N.$
4.50	North, bet. secs. 19 and 24.
	Over mountainous land; through scattering timber and dense undergrowth; ascend.
16.35	Top of ridge, 100 ft. above sec. cor., bears N. $80^{\circ}W.$ and S. $80^{\circ}E.$; descend.
32.00	Bottom of hollow, 200 ft. below ridge, course E.; ascend.
	Top of ridge, 200 ft. above hollow, bears N. $80^{\circ}W.$ and S. $80^{\circ}E.$; descend.
	Difference between measurements of 40.00 chs., by two

Green River Guide Meridian, through Tp. 18 S., etc.-Continued.

Chains	sets of chainmen, is 6 lks.; position of middle point By 1st set 39.97 chs. By 2nd set, 40.03 chs.; the mean of which is
40.00	Set a sandstone, 18x12x8, ins., 12 ins. in the ground, for 2 sec.cor., marked $\frac{1}{4}$ on W.face; from which An oak, 6 ins. diam., bears S.31° E., 42 lks. dist., marked $\frac{1}{2}$ S.19, B.T. A long leaf pine, 5 ins. diam., bears S.70° W., 33 lks. dist., marked $\frac{1}{2}$ S.24 B.T.
49.65	Bottom of hollow, 200 ft. below ridge, course N.50° E.; ascend .
60.00	Top of ridge, 150 ft. above hollow, bears N.E. and S.W.; descend .
70.75	Creek, 2 lks. wide, 1 inch deep, in hollow, 500 ft. below ridge, course N.E.; ascend . Difference between measurements of 60.00 chs., by two sets of chainmen, is 18 lks.; position of middle point By 1st set 79.91 chs. By 2nd set 80.00 chs.; the "mean of" which is
80.00	Set a sandstone, 24x12x10 ins., 18 ins. in the ground, for cor.of secs. 13, 18, 19, and 24, marked with 3 notches on N. and 3 notches on S.edges; from which An aspen, 5 ins. diam., bears N.75° E., 18 lks. dist., marked T.18 S., R.21 E., S.18, B.T. An aspen, 6 ins. diam., bears S.60° E., 15 lks. dist., marked T.18 S., R.21 E., S.19, B.T. A long leaf pine, 30 ins. diam., bears S.50° W., 42 lks. dist., marked T.18 S., R.20 E., S.24, B.T. An aspen, 4 ins. diam., bears N.85° W., 56 lks. dist., marked T.18 S., R.20 E., S.13, B.T. Land, mountainous. Soil, sandy loam; 2nd rate. Timber, cedar, long leaf pine, aspen, and oak. Undergrowth, oak and deer brush. Good grass for grazing. Mountainous land, or land covered with dense under- growth, 80.00 chs.

Green River Guide Meridian, through Tp. 16 S., etc-Continued.

Chains

North, bet. secs. 13 and 18.

Over mountainous land; through dense undergrowth and scattering timber; ascend.

16.25 Top of ridge, 200 ft. above sec.cor., bears E. and W.; descend.

25.00 Bottom of hollow, 300 ft. below ridge, course E.; ascend.

Difference between measurements of 40.00 chs., by two sets of chainmen, is 2 lks.; position of middle point

By 1st set 39.99 chs.

By 2nd set 40.01 chs.; the mean of which is

40.00 Set a sandstone, 30x12x6 ins., 22 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W. face; from which

An aspen, 5 ins. diam., bears N.35° E., 14 lks.

dist., marked $\frac{1}{2}$ S.18, B.T.

An aspen, 4 ins. diam., bears N.25° W., 11 lks.

dist., marked $\frac{1}{2}$ S.13, B.T.

79.00 Top of ridge, 250 ft. above hollow, bears E. and W.; descend abruptly.

Difference between measurements of 80.00 chs., by two sets of chainmen, is 16 lks.; position of middle point

By 1st set 79.98 chs.

By 2nd set 80.08 chs.; the mean of which is

80.00 Falls on stationary ledge, 50 ft. high, 100 ft. long, on which I cut across at the exact cor. point for cor. of secs. 7, 12, 13, and 18, with 4 notches on S. and 2 notches on N. sides; from which

A pine, 6 ins. diam., bears N.30° W., 100 lks.

dist., marked T.18 S., R.20 E., S.12, B.T.

A ledge, 10 ft. high, bears N.10° W., 10 lks.

dist., marked $\frac{1}{2}$ B.O. on South face.

No other trees within limits; raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. 20 ft. dist. (that being the nearest point at which a mound can be perpetuated).

Land, mountainous.

Green River Guide Meridian, through Tp. 18 S., etc.-Continued.

Chains Soil, sandy loam and rocky; 2nd and 4th rate.
Timber, cedar, pine, and aspen.
Undergrowth, oak and deer brush.
Good grass for grazing.
Mountainous land, or land covered with dense under-growth, 80.00 chs.

July 11, 1901.

July 12, 1901: At 7 h 0 m a.m., l.m.t., I set off $39^{\circ}16'$ N., on the lat. arc; $22^{\circ}03'$ N., on the decl. arc; and determine a true meridian with the solar at the cor. of secs. 7, 12, 13, and 18.

Thence I run

North, bet. secs. 7 and 12.

Over mountainous land; through scattering timber and scattering undergrowth; ascend gradually along side of ridge.

Difference between measurements of 40.00 chs., by two sets of chainmen, is 10 lks.; position of middle point
By 1st set 39.95 chs.

By 2nd set 40.05 chs.; the mean of which is
40.00 Set a sandstone, 18x10x4 ins., 12 ins. in the ground, for
 $\frac{1}{2}$ sec. cor., marked \pm on W. face; from which

A red pine, 12 ins. diam., bears N. 45° E., 150
lks. dist., marked \pm S. 7, B.T.

A red pine, 14 ins. diam., bears N. 30° W., 100
lks. dist., marked \pm S. 12, B.T.

Difference between measurements of 80.00 chs., by two sets of chainmen, is 12 lks.; position of middle point
By 1st set 79.94 chs.

By 2nd set 80.06 chs.; the mean of which is
80.00 Set a sandstone, 24x8x8 ins., 18 ins. in the ground, for
cor. of secs. 1, 6, 7, and 12, marked with 1 notch on N.
and 5 notches on S. edges; from which

A red pine, 6 ins. diam., bears N. 40° E., 50 lks.

Green River Guide Meridian, through Tp. 18 S., etc. -Continued.

Chains dist., marked T.18 S., R.21 E., S.6, B.T.
 A red pine, 8 ins. diam., bears S.30° E., 100 lks.
 dist., marked T.18 S., R.21 E., S.7, B.T.
 A red pine, 12 ins. diam., bears S.65° W., 75 lks.
 dist., marked T.18 S., R.20 E., S.12, B.T.
 A pinion pine, 12 ins. diam., bears N.45° W., 82
 lks. dist., marked T.18 S., R.20 E., S.1, B.T.

Land, mountainous.

Soil, sandy and gravelly loam; 2nd rate.

Timber, cedar, pinion pine, long leaf pine, and red pine.

Undergrowth, oak and deer brush.

Good grass for grazing.

Mountainous land, 80.00 chs.

North, bet. seccts. 1 and 6.

Over mountainous land; through scattering timber and
scattering undergrowth; ascend gradually along east
side of ridge.

Difference between measurements of 40.00 chs., by two
sets of chainmen, is 14 lks.; position of middle point
By 1st set 39.93 chs.

By 2nd set 40.07 chs.; the mean of which is
40.00 Set a sandstone, 20x8x6 ins., 15 ins. in the ground, for
sec.cor., marked $\frac{1}{2}$ on W. face; from which

A red pine, 8 ins. diam., bears N.12° E., 60 lks.

dist., marked $\frac{1}{2}$ S.6, B.T.

A red pine, 8 ins. diam., bears W., 35 lks. dist.,
marked $\frac{1}{2}$ S., 1, B.T.

40.25 Top of ridge, 100 ft. above $\frac{1}{2}$ sec.cor., bears N.E. and S.
W.; descend.

45.00 Bottom of canon, 250 ft. below ridge, course N.E.; ascend.

51.00 Top of ridge, 150 ft. above canon, bears E. and W.; des-
cend.

75.00 Foot of descent, 300 ft. below ridge, bears N.W. and S.
E.; enter bottom of the canon, course N.W.

Green River Guide Meridian, through Tp. 18 S., etc-Concluded.

Chains Difference between measurements of 80.00 chs., by two sets of chainmen, is 22 lks.; position of middle point
By 1st set 79.89 chs.
By 2nd set 80.11 chs.; the mean of which is
80.00 Set a sandstone, 20x10x10 ins., 16 ins. in the ground,
for cor. of Tps. 17 and 18 S., R. 20 and 21 E., marked
17 S. on N.E., 21 E. on S.E., 18 S. on S.W., and 20 E. on
N.W. faces; with 6 notches on each edge ; from which
An aspen, 6 ins. diam., bears N. 12° E., 60 lks.
dist., marked T. 17 S., R. 21 E., S. 31, B.T.
An aspen, 7 ins. diam., bears S. 30° E., 16 lks.
dist., marked T. 18 S., R. 21 E., S. 6, B.T.
An aspen, 6 ins. diam., bears S. 40° W., 26 lks.
dist., marked T. 18 S., R. 20 E., S. 1, B.T.
A pine, 16 ins. diam., bears N. 50° W., 65 lks.
dist., marked T. 17 S., R. 20 E., S. 36, B.T.
Land, mountainous.
Soil, gravelly and rocky; 3rd and 4th rate.
Timber, pine and aspen.
Undergrowth, oak, mahogany and deer brush.
Good grass for grazing.
Mountainous land, 80.00 chs.
July 12, 1901: At the noon hour the sky is overcast
and solar observations are impossible.

July, 12, 1901.

General Description.

Townships 17 South Range 20 and 21 East are high
rough mountains, producing an abundance of good grass
for grazing purposes, and plenty of water for grazing
purposes. There is not much land suitable for farming.

Andrew J. Stewart Jr.

U.S. Deputy Surveyor.

July 12, 1901.

BLANK

PAGE

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by _____, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of _____

showing the respective capacities in which they acted:

_____, Chainman.

_____, Chainman.

_____, Moundman.

_____, Moundman.

_____, Axman.

_____, Axman.

_____, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted _____, United States Deputy Surveyor, in surveying all those parts or portions of the _____

meridian, _____ of _____, which are represented in the foregoing field notes as having been surveyed by him and under his direction, and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for _____

_____, Chainman.

_____, Chainman.

_____, Moundman.

_____, Moundman.

_____, Axman.

_____, Axman.

_____, Flagman.

Subscribed and sworn to before me this _____
day of _____, 189 }



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, _____, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from United States Surveyor General for _____, bearing date of _____, day of _____, 189_____, I have well, faithfully, and truly, in my proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for _____, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____

of the _____ meridian, in the _____, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for _____, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

United States Deputy Surveyor.

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 189 }



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Ball Lake City, Polk County, March 19, 1903, 189
The Green River Creek
Meridian Township 18 South, Section 18
20 1/2 East of the Ball Lake Base and
Meridian, Polk

executed by *Andrew J. Stewart Jr.*
under his contract No. *243*, dated *April 15, 1901*, 189, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Edward H. Anderson
United States Surveyor Ge.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

United States Surveyor General.

BLANK

PAGE

BLANK

PAGE

FIELD NOTES

OF THE SURVEY OF THE

WEST AND NORTH BOUNDARIES

of

Township No. 18 South Range No. 20 East

Of the SALT LAKE BASE AND Meridian,

in the STATE OF UTAH

AS SURVEYED BY

Andrew J. Stewart Jr., United States Deputy Surveyor,

Under his Contract No. 243, dated April 12, 1901, 189

Survey commenced July 12, 1901, 189x

Survey completed July 17, 1901, 189

6-161

$$\begin{array}{r} \text{North} \quad 6.00.00 \\ \text{South} \quad 5.79.68 \\ \hline 11.79.68 \end{array}$$

NAMES AND DUTIES OF ASSISTANTS.

William Matson	Chainman
Harvey M. Cluff	Chainman
William Andrews	Moundman
Arthur Wilde	Moundman
Emilio Marriotti	Axman
Victor D. Cram	Flagman

To preliminary affidavits taken C. 1938 Pd

INDEX DIAGRAM.

Township....., Range.....

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
20	29	28	27	26	25
31	32	33	34	35	36

Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

WE, and

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; we will report the true distances to all notable objects, and the true lengths of all lines that we assist measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey

, Chainma

, Chainmu

Subscribed and sworn to before me this

day of, 189 }



WE, and

do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey

, Moundm

, Moundma

Subscribed and sworn to before me this

day of, 189 }



WE, and

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of and other duties, according to instructions given us, to the best of our skill and ability, in the survey

, Axm

, Axma

Subscribed and sworn to before me this

day of, 189 }



I, do solemnly swear that I will well and perform the duties of flagman according to instructions given me, to the best of my skill and ability, in survey of

, Flagm

Subscribed and sworn to before me this

day of, 189 }



West boundary of T 18 S R 20 E

Survey commenced July 12, 1901, and executed with a W. and L.E. Gurley light mountain transit, No. 1, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc; which is also the least count of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Salt Lake City, found correct, and was approved by the surveyor general for Utah, on May 29, 1901.

I examine the adjustments of the instrument and correct the level and collimation errors, then, to test the solar apparatus by comparing its indications resulting from solar observations made during p.m. and a.m. hours, with a true meridian established by observation on Polaris; I proceed as follows:

At the cor. of Tps. 18 and 19 S., Rs. 19 and 20 E., heretofore described, latitude $39^{\circ}12'N.$, longitude $109^{\circ}48'W.$, I set off $39^{\circ}12'N.$, on the lat. arc; $22^{\circ}00'N.$, on the decl. arc; and at 4 h 4 m p.m., l.m.t., determine a true meridian with the solar, and mark a point thereof on a stone, firmly set in the ground, 5.00 chs. N. of the cor.

July 12, 1901.

July 13, 1901: At 0 h 02 m a.m., l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual, and mark a point in the line thus determined on a wooden plug driven in the ground, 5.00 chs., N. of the cor.

At 6 30 m a.m., l.m.t., I lay off the azimuth of Polaris, $1^{\circ}34.3'$ to the west, and mark the true meridian thus determined, by cutting a small groove in the stone already set 5.00 chs. N. of my station; on which the true meridian falls 0.43 ins. east of the true meridian determined with the solar.

At 7 h 3 m a.m., l.m.t., I set off $39^{\circ}12'N.$, on the

West Boundary of T.18 S R.20 E.-Continued.

Chains	<p>lat.arc; $21^{\circ} 55' N.$, on the decl.arc; and mark a point in the true meridian determined with the solar, by a cross on the stone already set 5.00 chs.N.of the cor. This mark falls 0.32 ins.east of the true meridian determined by observation on Polaris.</p> <p>The solar apparatus by p.m. and a.m. observations defines positions for true meridians, respectively about $0'22''$ west and $0'18''$ east of the true meridian established by Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory.</p> <p>The magnetic bearing of the true meridian at 7 h 0 m a.m., is $15^{\circ} 50.6' W.$, the angle thus determined, reduced by the table page 100 of the Manual, gives the mean mag.decl.$15^{\circ} 45' E.$</p> <p>From the cor.of Tps.18 and 19 S.,Rs.19 and 20 E.</p> <p>I run</p> <p>North,bet.secs.31 and 36.</p> <p>Over mountainous land;through scattering timber;descend gradually.</p> <p>Set a sandstone, $18 \times 12 \times 8$ ins., 12 ins.in the ground, for $\frac{1}{2}$ sec.cor.,marked $\frac{1}{2}$ on W.face;and raise a mound of stone, 2 ft.base,$1\frac{1}{2}$ ft.high,W.of cor.Pits impracticable.</p> <p>From this cor.a log cabin,</p> <p>bears $S.27^{\circ} W.$about 10.00 chs.dist. A log cabin,</p> <p>bears $S.30^{\circ} W.$about 10.50 chs.</p> <p>dist.A corral bears $S.30^{\circ} W.$8.00 chs.dist.A spring bears $S.19^{\circ} W.$,9.25 chs.dist.'</p> <p>Creek,2 lks.wide,2 ins.deep,in bottom of Head of Pioche Canon,150 ft.below Tp.cor.,course $N.20^{\circ} E.$; ascend through dense undergrowth,bears with canon.</p> <p>Set a sandstone, $18 \times 12 \times 6$ ins., 12 ins.in the ground,for cor.of secs.25,30,31, and 36,marked with 5 notches on N.and 1 notch on S.edges; from which</p> <p>An aspen,12 ins.diam.,bears $S.45^{\circ} W.$,115 lks.</p> <p>dist.,marked T.18 S.,R.19 E.,S.36,B.T.</p>
40.00	
42.20	
80.00	

West Boundary of T.18 S., R.20 E.-Continued.

Chains	An aspen, 14 ins. diam., bears N.60°W., 110 lks. dist., marked T.18 S., R.19 E., S.25, B.T. No other trees within limits; raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, sandy and gravelly loam; 2nd rate. Timber, scattering aspen. Undergrowth, oak and deer brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	North, bet. secs. 25 and 30. Over mountainous land; through scattering timber and scattering undergrowth; ascend .
12.00	Top of ridge, 200 ft. above sec. cor., bears N.20°E. and S.20°W.; descend ..
20.20	Pole fence, bears N.20°E. and S.20°W.
40.00	Set a sandstone, 18x12x8 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; from which An aspen, 5 ins. diam., bears S.30°E., 40 lks. dist., marked $\frac{1}{4}$ S.30, B.T. An aspen, 5 ins. diam., bears N.80°W., 22 lks. dist., marked $\frac{1}{4}$ S.25, B.T.
48.67	Bottom of branch of Pioche Canon, 600 ft. below ridge, course N.30°E.; creek, 5 lks. wide, 2 ins. deep, in bottom of canon .
80.00	Set a sandstone, 28x8x8 ins., 21 ins. in the ground, for cor. of secs. 19, 24, 25, and 30, marked with 4 notches on N. and 2 notches on S. edges; and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, sandy and gravelly; 3rd rate. Timber, aspen. Undergrowth, oak.

NEC. SURVEY OF COLORADO - Continuation.

Good grass for grazing.

Mountainous land, \$0.00 che.

July 13, 1881: At this cor. I set off 21° 52' N., on the decl. arc; and at 9 M. S. M. P. M., l. m. t., observe the sun on the meridian; the resulting lat. is 35° 14' N.

North, bet. secs. 19 and 24.

Over mountainous land; through scattering timber and scattering undergrowth; ascend.

20.00 Top of ridge, 100 ft. above sec. cor.; bears N. 20° E. and S. 20° T.; descend.

40.00 Set a sandstone, 15x16x5 ins., 10 ins. in the ground, for 1 sec. cor., marked \pm on W. face; from which
An aspen, 20 ins. diam., bears N. 85° E., 32 lbs.
dist., marked \pm S. 18, E. T.
An aspen, 12 ins. diam., bears N. 20° E., 24 lbs.
dist., marked \pm S. 24, E. T.

60.00 Creek, 3 lns. wide, 3 ins. deep, in bottom of canon, 400 ft. below ridge, course N. 40° E.; ascend.

60.00 Set a sandstone, 18x14x5 ins., 12 ins. in the ground, for cor. of secs. 13, 18, 19, and 24, marked with 3 notches on N. and 3 notches on S. edges; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.

Land, mountainous.

Soil, sandy and gravelly loam; 2nd rate.

Timber, scattering aspen.

Undergrowth, oak and deer brush.

Good grass for grazing.

Mountainous land, \$0.00 che.

North, bet. secs. 17 and 18.

Over mountainous land; through scattering timber and scattering undergrowth; ascend.

West boundary of T.18 S., R.20 E.-Continued.

Chains 30.00	Top of divide ridge, between Hill Creek and Pioché canons, 400 ft. above sec.cor., bears N. 10° E. and S. 10° W.; main trail to Thompsons on top of ridge; descend.
40.00	Set a sandstone, 15x10x6 ins., 10 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W.of cor. Pits impracticable.
62.00	Head of hollow, 100 ft. below ridge, course W.; ascend.
80.00	Set a sandstone, 18x12x5 ins., 12 ins. in the ground, for cor.of secs. 7, 12, 13, and 18, marked with 2 notches on N. and 4 notches on S.edges; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W.of cor. Pits impracticable. Land, mountainous.
	Soil, sandy and gravelly; 3rd rate.
	Timber, scattering aspen.
	Undergrowth, oak and deer brush.
	Good grass for grazing.
	Mountainous land, 80.00 chs.

July 13, 1901.

July 15, 1901: At 7 h 0 m a.m., l.m.t., I set off $39^{\circ}16'$ N., on the lat.arc; $21^{\circ}37'$ N., on the decl.arc; and determine a true meridian with the solar, at the cor.of secs. 7, 12, 13, and 18.

Thence I run

North, bet.secs. 7 and 12.

Over mountainous land; through scattering timber and dense undergrowth; ascend.

7.00 Ridge, 50 ft. above sec.cor., bears N. 60° W. and S. 60° E.; descend.

40.00 Set a sandstone, 18x10x4 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; from which

An aspen, 10 ins. diam., bears N. 25° E., 25 lks. dist., marked $\frac{1}{2}$ S.7, B.T.

An aspen, 5 ins. diam., bears S. 35° W., 60 lks. dist., marked $\frac{1}{2}$ S.12, B.T.

West boundary of T. 18 S., R. 20 E. -Continued.

- Chains
43.00 Bottom of hollow, 100 ft. below $\frac{1}{2}$ sec.cor., course W.; ascend .
65.00 Top of ridge, 200 ft. above hollow, bears E. and W.; descend .
80.00 Set a sandstone, 16x12x6 ins., 11 ins. in the ground, for cor. of secs. 1, 6, 7, and 12, marked with 1 notch on N. and 5 notches on S.edges; and raise a mound of stone, 2 ft. base, $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
Land, mountainous.
Soil, sandy and gravelly; 3rd rate.
Timber, scattering aspen.
Undergrowth, oak, sage and deer brush.
Good grass for grazing.
Mountainous land, or land covered with dense under-growth, 80.00 chs.

North, bet. secs. 1 and 6.

Over mountainous land, through scattering timber and dense undergrowth; descend .

- 10.00 Hollow, 200 ft. below sec.cor., course W.; ascend .
40.00 Set a sandstone, 20x16x5 ins., 15 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
42.00 Top of ascent, edge of ridge, bears E. and W.; thence across flat top ridge.
47.00 Leave ridge, bears E. and W.; descend .
67.00 Bottom of canon, 600 ft. below ridge, course W.; ascend .
80.00 Set a sandstone, 18x10x10 ins., 12 ins. in the ground, for cor.of Tps. 17 and 18 S., Rs. 19 and 20 E., marked 17 S., on N.E., 20 E. on S.E., 18 S. on S.W., and 19 E., on N.W. faces; with 6 notches on each edge; from which An aspen, 6 ins. diam., bears N. 70° E., 180 lms. dist., marked T.17 S., R.20 E., S.31, B.T.
An aspen, 8 ins. diam., bears S. 65° E., 130 lms. dist., marked T.18 S., R.20 E., S.6, B.T.

West boundary of T.18 S. R. 20 E. -Concluded.

Chains	An aspen, 8 ins. diam., bears S. 50° W., 60 lks. dist., marked T.18 S., R.19 E., S.1, B.T. An aspen, 5 ins. diam., bears N. 20° W., 70 lks. dist., marked T.17 S., R.19 E., S.36, B.T.
	Land, mountainous.
	Soil, sandy and gravelly loam; 2nd rate.
	Timber, aspen.
	Undergrowth, oak and sage brush.
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	July 15, 1901: At this cor. I set off 21° 34' N., on the decl. arc; and at 0 h. 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39° 17' N.
	East, on a random line along N. bdy. of Tp., setting temp. & sec. and sec. cors. at intervals of 40.00 chs., and at 479.88 chs., intersect the Green River Guide Meridian, 112 lks. S. of the cor. of Tps. 17 and 18 S., Rs. 20 and 21 E., heretofore described.
	The falling answers to a correction of 8' or 18 lks. S. per mile counting from the Cor. of Tps. 17 and 18 S., Rs. 20 and 21 E.
	July 15, 1901.
	July 16, 1901: At 7 h 0 m a.m., l.m.t., I set off 39° 17' N., on the lat. arc; 21° 27' N., on the decl. arc; and determine a true meridian, with the solar at the cor. of Tps. 17 and 18 S., Rs. 20 and 21 E.,
	Thence I run S. 89° 52' W., on a true line bet. secs. 1 and 36, along N. bdy. of T.18 S., R.20 E.
	Over mountainous land; through dense undergrowth; ascend
20.00	Top of ridge, 350 ft. above Tp. cor., bears N. and S.; des-

North boundary of T.18 S., R.20 E.-Continued.

Chains	cend .
40.00	Set a sandstone, 16x12x6 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
52.00	Bottom of hollow, 250 ft. below ridge, course N.E.; ascend .
67.00	Top of ridge, 300 ft. above hollow, bears N.E. and S.W.; descend .
80.00	Set a sandstone, 18x12x5 ins., 12 ins. in the ground, for cor. of secs. 1, 2, 35, and 56, marked with 1 notch on E. and 5 notches on W. edges; from which An aspen, 5 ins. diam., bears N. 25° E., 125 lks. dist., marked T.17 S., R.20 E., S.36, B.T. An aspen, 4 ins. diam., bears S. 35° W., 102 lks. dist., marked T.18 S., R.20 E. S.2, B.T. An aspen, 6 ins. diam., bears N. 20° W., 100 lks. dist., marked T.17 S., R.20 E., S.35, B.T. No other tree within limits; raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, sandy and gravelly; 3rd rate. No timber. Undergrowth, sage and oak brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	S. $89^\circ 52' W.$, on a true line bet. secs. 2 and 35. Over mountainous land; through scattering timber and dense aspen saplings; descend ..
10.00	Bottom of hollow, 50 ft. below sec. cor., course N.; ascend .
26.00	Top of ridge, 300 ft. above hollow, bears N.E. and S.W.; descend .

North boundary of T.18 S., R.20 E.-Continued.

Chains	
40.00	Set a sandstone, 20x12x4 ins., 15 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N.face; from which A pine, 10 ins. diam., bears N.20° E., 65 lks. dist., marked $\frac{1}{2}$ S.35,B.T. A pine, 12 ins. diam., bears S.10° W., 25 lks. dist., marked $\frac{1}{2}$ S.2,B.T.
53.00	Bottom of hollow, 200 ft. below ridge, course N.25° W.; ascend .
80.00	Set a sandstone, 18x9x8 ins., 12 ins. in the ground, for cor.of secs.2,3,34, and 35, marked with 2 notches on E.and 4 notches on W.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor.Pits impracticable. Land, mountainous. Soil, sandy and gravelly; 3rd rate. Timber, pine and aspen. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	S.89° 52' W., on a true line bet.secs.5 and 34. Over mountainous land; through dense undergrowth and scattering timber ;ascend .
19.00	Top of ridge, 400 ft. above sec.cor., bears N.40° W. and S.30° E.; descend over ledge.
40.00	Set a sandstone, 18x10x6 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor.Pits impracticable.
41.00	Willow Creek, 6 lks.wide, 5 ins.deep, in bottom of Willow Creek Canon, 300 ft. below ridge, course N.;ascend .
80.00	Set a sandstone, 18x10x8 ins., 12 ins.in the ground, for cor.of secs.3,4,33, and 34,marked with 3 notches

North boundary of T. 18 S., R. 20 E.-Continued.

Chains	on E. and 3 notches on W.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
	Land, mountainous...
	Soil, sandy and gravelly; 3rd rate.
	Timber, pine and aspen.
	Undergrowth, oak and sage.
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	July 16, 1901: At the noon hour the sky is overcast and solar observations are impossible.
<hr/>	
	S. $89^{\circ} 52' W.$, on a true line bet. secs. 4 and 33.
	Over mountainous land; through dense undergrowth and scattering timber : ascend .
19.00	Top of ridge, 250 ft. above sec. cor., bears N. and S.; descend .
40.00	Set a sandstone, 18x9x6 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; from which
	A pine, 9 ins. diam., bears N. $56^{\circ} E.$, 35 lks. dist., marked $\frac{1}{2}$ S. 33, B.T.
	A pine, 12 ins. diam., bears S. $45^{\circ} W.$, 18 lks. dist., marked $\frac{1}{2}$ S. 3, B.T.
46.00	Bottom of canon, 500 ft. below ridge, course N. $10^{\circ} E.$; ascend .
60.00	Set a sandstone, 18x9x6 ins., 12 ins. in the ground, for cor. of secs. 4, 5, 32, and 33, marked with 4 notches on E. and 2 notches on W.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	Land, mountainous.
	Soil, sandy and gravelly loam, 2nd rate.
	Timber, pine and aspen and cedar.
	Undergrowth, aspen saplings and oak.

North boundary of T.18 S., R.20 E.-Continued.

Chains	Good grass for grazing. Mountainous land, or land covered with dense under-growth, 80.00 chs.
	July 16, 1901.
	July 17, 1901: At 7 h 0 m a.m., l.m.t., I set off $50^{\circ} 17'$ N., on the lat.arc; $21^{\circ} 17' N.$, on the decl.arc; and determine a true meridian with the solar at the cor.of secs. 4, 5, 32, and 33.
	Thence I run $S.89^{\circ} 52' W.$, on a true line bet. secs. 5 and 32. Over mountainous land; through scattering undergrowth; ascend .
8.75	Mormon ridge, 100 ft. above sec.cor., bears N.20° E. and S.20° W.; descend .
40.00	Set a sandstone, 16x10x5 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked \pm on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable.
59.85	Creek, 8 lks. wide, 6 ins. deep, in bottom of Pioche Canon, 500 ft. below ridge, course N.20° E.; ascend .
69.00	Top of ridge, 300 ft. above canon, bears N.30° E. and S.30° W.; descend .
78.00	Creek, 6 lks. wide, 4 ins. deep, in canon, 200 ft. below ridge, course N.30° E.; ascend through aspen timber.
80.00	Set a sandstone, 20x14x4 ins., 15 ins. in the ground, for cor.of secs. 5, 6, 31, and 32, marked with 5 notches on E. and 1 notch on W.edges; from which An aspen, 6 ins.diam., bears N.60° E., 150 lks. dist., marked T.17 S., R.20 E., S.32, B.T. An aspen, 4 ins.diam., bears S.45° E., 120 lks. dist., marked T.18 S., R.20 E., S.5, B.T. A pine, 12 ins.diam., bears S.10° W., 80 lks. dist., marked T.18 S., R.20 E., S.6, B.T. A pine, 8 ins.diam., bears N.30° W., 20 lks. dist., marked T.17 S., R.20 E., S.31, B.T.

North boundary of T.18 S., R.20 E. -Concluded

	Chains	Land, mountainous. Soil, sandy loam and gravelly; 2nd and 3rd rate. Timber, aspen. Undergrowth, sage brush, aspen saplings, and oak. Good grass for grazing. Mountainous land, 80.00 chs.
		S. 89° 52' W., on a true line bet. secs. 6 and 31. Over mountainous land; through scattering timber and scattering brush; ascend .
40.00		Set a sandstone, 16x10x5 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N. face; from which An aspen, 4 ins. diam., bears N. 20° E., 150 lks. dist., marked $\frac{1}{4}$ S. 31° B.T. An aspen, 8 ins. diam., bears S. 10° W., 170 lks. . dist., marked $\frac{1}{4}$ S. 6° B.T.
48.50		Top of divide ridge between Pioche Canon and Hill Creek Canon, 600 ft. above sec.cor., bears N. 10° E. and S. 10° W., Trail to Thompsons, bears with ridge; descend.
79.68		The cor. of Tps. 17 and 18 S., Rs. 19 and 20 E., Land, mountainous. Soil, sandy and gravelly loam; 2nd rate. Timber, scattering pine and aspen. Undergrowth, sage brush and oak . Good grass for grazing. Mountainous land, 79.68 chs.
		July 17, 1901: At the noon hour the sky is overcast and solar observations are impossible.

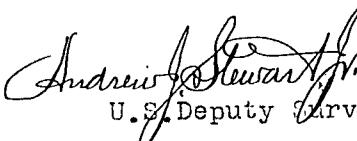
July 17, 1901.

Boundaries of T.18 S., R.20 E.-Concluded.

Latitudes, departures, and closing errors.

Line designated	true bearing	dist- ance	latitudes		departures	
			N. chs.	S. chs.	E. chs.	W. chs.
W.bdy.T.18 S.,R.20 E.	North	480.00	480.00			
N.bdy.T.18 S.,R.20 E.	N. $89^{\circ} 52' E$	479.68	1.12		479.68	
E.bdy.T.18 S.,R.20 E.	South	480.00		480.00		
S.bdy.T.18 S.,R.20 E.	S. $89^{\circ} 55' W$	479.75		.70		479.75
Convergency					.50	
Error in lat.			481.12	480.70	480.27	479.75
Error in dep.			180.70		479.75	
					42	
						.52

This township is very rough and mountainous, containing plenty of water for grazing purposes and is very well adapted for grazing. There is some timber in the township but not sufficient to make it valuable therefor. The township should be subdivided.



U.S. Deputy Surveyor

July 17, 1901.

BLANK

PAGE

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by

, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of

showing the respective capacities in which they acted:

, Chainman.

, Chainman.

, Moundman.

, Moundman.

, Axman.

, Axman.

, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted

, United States Deputy Surveyor, in surveying all those parts or portions of the

of the

meridian, , which are represented

in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for

, Chainman.

, Chainman.

, Moundman.

, Moundman.

, Axman.

, Axman.

, Flagman.

Subscribed and sworn to before me this

day of , 189 }



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

United States Deputy Surveyor, do
sincere and true, to貫eration of a contract heretofore made,
between the United States, and _____, bearing date of the
day of _____, 18____, I have well, faithfully, and truly, in my own
proper person, and under seal, and with the instructions furnished by the United States Surveyor
General, _____, the Manual of Surveying Instructions, and the laws of the
United States, except all those particular portions of

the _____, of the _____,

meridian, in the _____, which are represented in the
said field notes as having been surveyed by me, and under my direction; and I do further solemnly
swear that all the angles of said survey have been established and perpetuated in strict accordance with
the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor
General, _____, and in the specific manner described in the field notes, and that
I do further swear the said field notes of such survey; and should any fraud be detected, I will suffer
the penalties of perjury under the provisions of an Act of Congress approved August 8, 1846.

United States Deputy Surveyor.

Subscribed by me, _____, and sworn to before me }
the day of _____, 18____.

000000
000000

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL

With Salt Lake City, Utah, March 19, 1902, 189
The following field notes of the survey of the West & North Boundary
of Township 10, in the Range 20 East of the Salt
Lake, Provo, Provo, Utah,

subscribed by
John C. Johnson, No. 360, dated, April 2, 1891, having been
examined and found to be in every respect and explanations made, the said field notes, and the
same are hereby accepted and duly recorded.

E. W. Peck, D. S.
United States Surveyor General.

I certify, that the foregoing transcript of the field notes of the above-described survey has
been correctly copied from the original notes on file in this office.

United States Surveyor General.

BLANK

PAGE

BLANK

PAGE

Survey June 20, 1901

4-679.

G.

41

FIELD NOTES

H. B. OF THE SURVEY OF THE

SUBDIVISION

of

Township No. 18 South, Range No. 20 East,

Of the SALT LAKE BASE AND Meridian,

in the STATE OF UTAH

AS SURVEYED BY

Andrew J. Stewart Jr., United States Deputy Surveyor,

Under his Contract No. 243, dated April 12, 1901, 280X

Survey commenced July 17, 1901, 280Y

Survey completed July 30, 1901, 280Z

6-161

Augt 60 or 14 ✓

NAMES AND DUTIES OF ASSISTANTS.

william Matson Chainman

Harvey M. Cluff Chainman

William Andrews Moundman

Arthur Wilde Moundman

Omero Marriotti Axman

Victor D. Cram Flagman

In full name affixed see book D-195 P.20 E

INDEX DIAGRAM.

Township _____, *Range* _____

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Meanders Page _____

PRELIMINARY OATHS OF ASSISTANTS.

WE, _____ and _____

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

, Chainman.

, Chainman.

Subscribed and sworn to before me this _____
day of _____, 189 }



WE, _____ and _____

do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

, Moundman.

, Moundman.

Subscribed and sworn to before me this _____
day of _____, 189 }



WE, _____ and _____

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

, Axman.

, Axman.

Subscribed and sworn to before me this _____
day of _____, 189 }



I, _____, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

, Flagman.

Subscribed and sworn to before me this _____
day of _____, 189 }



Subdivision of T.18 S., R.20 E.

Survey commenced July 17, 1901, and executed with a Z. and L.E. Gurley light mountain transit, No. 1, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc; which is also the least count of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Salt Lake City, found correct, and was approved by the surveyor general for Utah, May 29, 1901.

I examine the adjustments of the instrument, and correct the level and collimation errors, then, to test the solar apparatus by comparing its indications resulting from solar observations made during p.m. and a.m. hours with a true meridian, determined by Polaris observation, I proceed as follows:

At the cor. of secs. 1, 2, 35, and 36, on S. bdy. of T. 18 S., R. 20 E., heretofore described, latitude $39^{\circ} 12' N.$, longitude $109^{\circ} 42' W.$, I set off $39^{\circ} 12' N.$, on the lat. arc; $21^{\circ} 13' N.$, on the decl. arc; and determine a true meridian with the solar, at 5 h 2 m p.m., l.m.t., and mark a point thereon on a stone, firmly set in the ground, 5.00 chs. N. of the cor.

At 11 h 46 m p.m., l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual, and mark a point in the line thus determined, on a wooden plug driven in the ground, 5.00 chs. N. of the cor.

July 17, 1901.

July 18, 1901: At 6 h 30 m a.m., l.m.t., I lay off the azimuth of Polaris $1^{\circ} 34.5'$ to the west, and mark the true meridian thus determined, by cutting a small groove in the stone, already set 5.00 chs. N. of our station; on which the true meridian falls 0.39 ins. east of the true meridian established by solar observation. At 7 h 2 m a. m., l.m.t., I set off $39^{\circ} 12' N.$, on the lat.

Subdivision of T. 18 S., R. 20 E. -Continued.

Chains	arc; $21^{\circ} 7' N.$, on the decl. arc; and mark a point in the true meridian determined with the solar, by a cross on the stone, already set 5.00 chs. N. of the cor.; this marked falls 0.35 ins. east of the true meridian, established by Polaris observation. The solar apparatus by p.m. and a.m. observations, defines positions for true meridians, respectively about $0^{\circ} 20''$ west and $0^{\circ} 18''$ east of the true meridian, established by Polaris observation; therefore we conclude that the adjustments of the instrument are satisfactory. The magnetic bearing of the true meridian at 7 h 50 m a.m., is $15^{\circ} 50.6' W.$, the angle thus determined, reduced by the table page 100 of the Manual, gives the mean mag. decl. $15^{\circ} 45' E.$
	From the above described cor. I run N. $0^{\circ} 01' W.$, bet. secs. 35 and 36. Over mountainous land; through dense undergrowth and scattering timber; descend .
8.00	Creek, 6 lks. wide, 4 ins. deep, sandy bottom, moderate current, in bottom of branch of She Canon, 150 ft. below sec. cor., course E.; ascend .
15.00	Top of ridge, 150 ft. above canon, bears N.E. and S.W.; descend .
34.00	Bottom of hollow, 100 ft. below ridge, course S. $20^{\circ} W.$; ascend .
40.00	Set a sandstone, 20x16x10 ins., 15 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{4}$ on W. face; from which A pinion pine, 14 ins. diam., bears S. $11^{\circ} E.$, 55 lks. dist.. marked $\frac{1}{4}$ S. 36, B.T.
	A cedar, 12 ins. diam., bears S. $75^{\circ} W.$, 58 lks. dist., marked $\frac{1}{4}$ S. 35, B.T.
80.00	Set a sandstone, 24x10x10 ins., 18 ins. in the ground, for cor. of secs. 25, 26, 35, and 36, marked with 1 notch on S. and 1 notch on E. edges; from which

Subdivision of T.18 S., R.20 E.-Continued.

Chains	A pine, 10 ins. diam., bears N. 24° E., 150 lks. dist. marked T.18 S., R.20 E., S.25, B.T. A pine, 30 ins. diam., bears S. 7° E., 15 lks. dist., marked T.18 S., R.20 E., S.36, B.T. A pine, 30 ins. diam., bears S. 29° W., 78 lks. dist., marked T.18 S., R.20 E., S.35, B.T. A pine, 30 ins. diam., bears N. 80° W., 28 lks. dist., marked T.18 S., R.20 E., S.26, B.T.
	Land, mountainous. Soil, black loam and gravelly; 1st and 3rd rate. Timber, scattering pine, aspen, cedar and pinion pine. Undergrowth, aspen saplings, and deer brush. Good grass for grazing. Mountainous land, or land covered with dense under-growth, 80.00 chs.
	N. 89° 55' E., on a random line bet. secs. 25 and 36.
40.00	Set temp $\frac{1}{2}$ sec. cor.
79.96	Intersect The Green River Guide Meridian, 2 lks. S. of the cor. of secs. 25, 30, 31, and 36, heretofore described. Thence I run S. 89° 54' W., on a true line bet. secs. 25 and 36. Over mountainous land; through scattering timber; as-cend.
8.00	Top of ridge, 100 ft. above sec. cor., bears N. 20° W. and S. 20° E.; descend.
15.00	Creek, 4 lks. wide, 6 ins. deep, rapid current, sandy bot-tom, in bottom of She Canon, 200 ft. below ridge, course N. 20° E.; ascend.
39.98	Set a sandstone, 16x10x4 ins., 11 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; from which A pine, 8 ins. diam., bears N. 52° E., 80 lks. dist., marked $\frac{1}{2}$ S. 25, B.T. A pine, 30 ins. diam., bears S. 72° E., 50 lks. dist., marked $\frac{1}{2}$ S. 36, B.T.

Subdivision of T. 16 S., R. 20 E.-Continued.

Chains

78.00 Top of ridge, 800 ft. above canon, bears N. 15° W. and S. 15° E.; descend.

79.96 The cor. of secs. 25, 26, 35, and 36.

Land, mountainous.

Soil, sandy loam and gravelly; 2nd and 3rd rate.

Timber, pine and aspen.

Good grass for grazing.

Mountainous land, 79.96 chs.

N. 0° 01' W., bet. secs. 25 and 26.

Over mountainous land; through scattering timber and scattering undergrowth; ascend.

3.00 Top of ridge, 25 ft. above sec. cor., bears N. 75° E. and S. 75° W.; descend.

40.00 Set a sandstone, 18x9x7 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

45.00 Bottom of canon, 900 ft. below ridge, course N.E.; ascend.

80.00 Set a sandstone, 18x9x6 ins., 12 ins. in the ground, for cor. of secs. 23, 24, 25, and 26, marked with 2 notches on S. and 1 notch on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

Land, mountainous.

Soil, sandy loam and gravelly; 2nd and 3rd rate.

Timber, pine and aspen.

Undergrowth, sage brush and deer brush.

Good grass for grazing.

Mountainous land, 80.00 chs.

July 18, 1901: At this cor. I set off 21° 4' N., on the decl. arc; and at 0 h 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39° 14' N.

Subdivision of T. 18 S., R. 20 E. -Continued.

- Chains N.89° 54' E., on a random line bet. secs. 24 and 25.
- 40.00 Set temp. at sec.cor..
- 80.14 Intersect the Green River Guide Meridian, 14 lks. N. of
of the cor. of secs. 19, 24, 25, and 30, heretofore de-
scribed.
Thence I run
West, on a true line bet. secs. 24 and 25.
Over mountainous land; through scattering timber and
scattering undergrowth; ascend .
- 40.07 Top of ridge, 1000 ft. above sec.cor., bears N.65° E. and
S.65° W.; descend .
Set a sandstone, 18x12x7 ins., 12 ins. in the ground,
for a sec.cor., marked $\frac{1}{2}$ on N. face; and raise a mound
of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impractic-
able.
Descend .
- 60.00 Bottom of canon, 400 ft. below ridge, course N.; as-
cend .
- 80.14 The cor. of secs. 23, 24, 25, and 26.
Land, mountainous.
Soil, sandy loam and gravelly and rocky; 2nd 3rd and
4th rate.
Timber, pine, aspen, cedar, and pinion pine.
Undergrowth, sage and oak brush.
Good grass for grazing.
Mountainous land, 80.14 chs.
-
- N.0° 01' W., bet. secs. 23 and 24.
Over mountainous land, through scattering timber and
dense undergrowth; ascend .
- 3.10 Top of ridge, 75 ft. above sec.cor., bears N.75° E. and
and S.75° W.; descend .
- 9.50 Bottom of canon, 300 ft. below ridge, course E.; ascend .
- 14.00 Top of ridge, 200 ft. above canon, bears N.30° E. and W.;
descend .
- 40.00 Set a sandstone, 18x9x6 ins., 12 ins. in the ground, for

Subdivision of T. 18 S. R. 20 E.-Continued.

Chains $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.

60.00 Set a sandstone, 16x10x4 ins., 11 ins. in the ground, for cor. of secs. 13, 14, 23, and 24, marked with 3 notches on S. and 1 notch on E. edges; from which

- An aspen, 5 ins. diam., bears N. 77° W., 110 lks. dist., marked T. 18 S., R. 20 E., S. 14, B.T.

No other trees within limits; raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous.

Soil, sandy loam and rocky; 2nd and 4th rate.

Timber, scattering pine and cedar and aspen.

Undergrowth, sage brush and oak.

Good grass for grazing.

Mountainous land; or land covered with dense undergrowth, 80.00 chs.

East, on a random line bet. secs. 13 and 24.

40.00 Set temp. $\frac{1}{2}$ sec.cor.

80.00 Intersect the Green River Guide Meridian, 10 lks. S. of the cor. of secs. 13, 18, 19, and 24, heretofore described.

Thence I run

S. $89^{\circ} 56' W.$, on a true line bet. secs. 13 and 24.

Over mountainous land; through dense undergrowth and scattering timber; ascend.

37.50 Top of ridge, 700 ft. above sec.cor., bears N. and S.; descend.

40.00 Set a sandstone, 18x9x7 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.

73.25 Bottom of canon, 800 ft. below ridge, course N. 3° W.; ascend.

80.00 The cor. of secs. 13, 14, 23, and 24.

Subdivision of T.18 S., R.20 E.-Continued.

Chains	<p>Land, mountainous.</p> <p>Soil, sandy loam, and rocky; 2nd and 4th rate.</p> <p>Timber, cedar, pinion pine and aspen.</p> <p>Undergrowth, oak and sage brush.</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense undergrowth, 80.00 cbs.</p>
--------	---

July 18, 1901.

July 19, 1901: At 7 h 3 m a.m., l.m.t., I set off $39^{\circ}15'$ N., on the lat. arc; $20^{\circ}57'N.$, on the decl. arc; and determine a true meridian, with the solar, at the cor, of secs. 13, 14, 23, and 24.

Thence I run

N. $0^{\circ}01'W.$, bet. secs. 13 and 14.

Over mountainous land; through scattering undergrowth and scattering timber; descend along west side of canon.

- 40.00 Set a sandstone, $20 \times 10 \times 4$ ins., 15 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; from which
An aspen, 4 ins. diam., bears N. $85^{\circ}E.$, 25 lks.
dist., marked $\frac{1}{4}$ S. 13, B.T.
A pine, 10 ins. diam., bears S. $60^{\circ}W.$, 70 lks.
dist., marked $\frac{1}{2}$ S. 14, B.T.

56.00 Bottom of canon, 500 ft. below sec. cor., course N. $5^{\circ}W.$; ascend over low spur.

63.00 Top of spur, 50 ft. above canon, bears E. and W.; descend.

69.00 Bottom of canon, 75 ft. below spur, course N. $40^{\circ}E.$; ascend.

- 80.00 Set a sandstone, $18 \times 10 \times 8$ ins., 12 ins. in the ground, for cor. of secs. 11, 12, 13, and 14, marked with 4 notches on S. and 1 notch on E. edges; from which
An aspen, 6 ins. diam., bears N. $30^{\circ}E.$, 40 lks.
dist., marked T.18 S., R.20 E., S.12, B.T.

Subdivision of T. 18 S., R. 20 E. -Continued.

Chains	An aspen, 5 ins. diam., bears S. 40° E., 20 lks. dist., marked T. 18 S., R. 20 E., S. 13, B.T. A pine, 20 ins. diam., bears S. 20° W., 12 lks. dist., marked T. 18 S., R. 20 E., S. 14, B.T. An aspen, 6 ins. diam., bears N. 29° W., 45 lks. dist., marked T. 18 S., R. 20 E., S. 11, B.T. Land, mountainous. Soil, sandy and gravelly loam and rocky; 2nd and 4th rate. Timber, cedar, pine and aspen. Undergrowth, sage brush and oak brush. Good grass for grazing. Mountainous land, 80.00 chs.
40.00	N. 89° 56' E., on a random line bet. secs. 12 and 13. Set temp. $\frac{1}{2}$ sec. cor.
80.04	Intersect the Green River Guide Meridian, 7 lks. S. of the cor. of secs. 7, 12, 13, and 18, heretofore described. thence I run S. 89° 53' W., on a true line bet. secs. 12 and 13. Over mountainous land; through scattering timber and scattering undergrowth; ascend.
22.00	Top of ridge, 500 ft. above sec. cor., bears N. and S.; de- scend.
40.02	Set a sandstone, 18x9x6 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, 1 ft. high, N. of cor. Pits impractical. able.
75.00	Bottom of canon, 600 ft. below ridge, course N.; ascend through dense undergrowth.
80.04	The cor. of secs. 11, 12, 13, and 14. Land, mountainous. Soil, sandy loam and rocky; 2nd and 4th rate. Timber, cedar, pinion pine and aspen. Undergrowth, sage and oak brush.

Subdivision of T. 16 S., R. 20 E., -Continued.

Chains	Good grass for grazing. Mountainous land, or land covered with dense under-growth, 80.04 chs.
	N.0°01'W., bet. secs. 11 and 12. Over mountainous land; through dense undergrowth, and scattering timber; ascend.
40.00	Set a sandstone, 18x11x5 ins., 12. ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
46.60	Top of ridge, 400 ft. above sec.cor., bears N.75°W. and S.75°E.; descend.
64.15	Bottom of canon, 500 ft. below ridge, course N.75°E.; ascend.
80.00	Set a sandstone, 24x10x8 ins., 18 ins. in the ground, for cor. of secs. 1, 2, 11, and 12, marked with 5 notches on S. and 1 notch on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, sandy loam and rocky; 2nd and 4th rate. Timber, scattering cedar and pinion pine. Undergrowth, sage brush, oak and deer brush. Good grass for grazing. Mountainous land, or land covered with dense under-growth, 80.00 chs. July 19, 1901: At this cor. I set off 20°53'N., on the decl. arc; and at 6 h 3 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39°16'N.
	<p style="text-align: center;">✓</p> N.89°53'E., on a random line bet. secs. 1 and 12.
40.00	Set temp. $\frac{1}{2}$ sec.cor.
80.08	Intersect the Green River Guide Meridian, at the cor.

Subdivision of T.18 S., R.20 E.-Continued.

- | | |
|--------|--|
| Chains | of secs. 1, 6, 7, and 12, heretofore described.

Thence I run
S.89°52'W., on a true line bet. secs. 1 and 12.
Over mountainous land; through scattering timber; ascend. |
| 11.50 | Top of ridge, 200 ft. above sec. cor., bears N. and S.; descend. |
| 35.90 | Creek, 4 lks. wide, 6 ins. deep, in bottom of canon, 600 ft. below ridge, course N.10°E.; ascend. |
| 40.04 | Set a sandstone, 18x8x6 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which
An aspen, 6 ins. diam., bears N.10°W., 60 lks. dist., marked $\frac{1}{4}$ S.1, B.T.
An aspen, 6 ins. diam., bears S.20°E., 12 lks. dist., marked $\frac{1}{4}$ S.12, B.T. |
| 45.00 | Enter dense undergrowth, bears N. and S. |
| 80.08 | The cor. of secs. 1, 2, 11, and 12.
Land, mountainous.
Soil, sandy loam and rocky; 2nd and 4th rate.
Timber, cedar, pinion pine and aspen.
Undergrowth, oak and sage brush.
Good grass for grazing.
Mountainous land, or land covered with dense undergrowth, 80.08 chs. |
| 40.00 | N.0°01'W., on a random line bet. secs. 1 and 2.
Set temp. $\frac{1}{4}$ sec. cor. |
| 80.02 | Intersect N. bdy. of Tp., at the cor. of secs. 1, 2, 35, and 36, heretofore described.
Thence I run
S.0°01'E., on a true line bet. secs. 1 and 2. |
| 14.00 | Over mountainous land; through scattering timber; ascend.
Top of ridge, 200 ft. above sec. cor., bears N.40°E., and S.40°W.; descend. |

Subdivision of T 18 S . R 20 E -Continued

Chains	
40.02	Set a sandstone, 18x12x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; from which A pine, 4 ins. diam., bears S.85° E., 23 lks. dist., marked $\frac{1}{4}$ S.1, B.T.
	A pine, 12 ins. diam., bears S.10° W., 50 lks. dist., marked $\frac{1}{4}$ S.2, B.T.
45.60	Bottom of hollow, 200 ft. below ridge, course E.; ascend.
67.50	Top of ridge, 250 ft. above hollow, bears N.70° W. and S.70° E.; descend through dense undergrowth.
80.02	The cor.of secs.1,2,11, and 12. Land, mountainous. Soil, sandy loam and gravelly; 2nd and 3rd rate. Timber, cedar , pine and aspen. Undergrowth, oak and sage brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.02 chs.

July 19, 1901.

July 20, 1901: At 7 h 4 m a.m.l.m.t., I set off 39°12' N., on the lat.arc; 20° 46' N., on the decl.arc; and determine a true meridian, with the solar, at the cor.of secs.2,3,34, and 35, on S.bdy.of Tp., heretofore described.

Thence I run

N.0°01'W., bet.secs.34 and 35.

Over mountainous land; through heavy timber; descend.

15.00 Bottom of hollow, 250 ft. below sec.cor., course S.60° E.; ascend .

40.00 Set a sandstone, 20x14x5 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; from which A pine, 10 ins. diam., bears N.40° E., 5 lks. dist., marked $\frac{1}{4}$ S.35, B.T.

A pine, 12 ins. diam., bears S.61° W., 45 lks. dist., marked $\frac{1}{4}$ S.34, B.T.

Subdivision of T.18 S., R.20 E.-Continued.

Chains	
42.00	Leave heavy timber and enter scattering timber and dense undergrowth, bears E. and W.
45.00	Top of ridge, 500 ft. above hollow, bears E. and W.; descend.
54.00	Bottom of hollow, 100 ft. below ridge, course N.E.; ascend.
.65.00	Top of ridge, 100 ft. above hollow, bears N.E. and S.W.; descend.
77.00	Bottom of hollow, 200 ft. below ridge, course N.30°E.; ascend.
80.00	Set a sandstone, 16x12x6 ins., 11 ins. in the ground, for cor. of secs. 26, 27, 34, and 35, marked with 1 notch on S. and 2 notches on E. edges; from which <p>An aspen, 12 ins. diam., bears N.40°E., 168 lks. dist., marked T.18 S., R.20 E., S.26, B.T.</p> <p>An aspen, 12 ins. diam., bears S.40°E., 200 lks. dist., marked T.18 S., R.20 E., S.35, B.T.</p> <p>An aspen, 6 ins. diam., bears S.64°W., 196 lks. dist., marked T.18 S., R.20 E., S.34, B.T.</p> <p>An aspen, 5 ins. diam., bears N.32°W., 142 lks. dist., marked T.18 S., R.20 E., S.27, B.T.</p>
	Land, mountainous.
	Soil, black loam and gravelly; 1st and 3rd rate.
	Timber, pine and aspen.
	Undergrowth, aspen saplings and oak.
	Good grass for grazing.
	Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.00 chs.
	N.89°55'E., on a random line bet. secs. 26 and 35.
40.00	Set temp. at sec. cor.
80.00	Intersect N. and S. line, at the cor. of secs. 25, 26, 35, and 36.
	Thence I run

Subdivision of T. 18 S., R. 20 E. -Continued.

Chains	S.89°55'W., on a true line bet. secs. 26 and 55. Over mountainous land; through scattering timber and scattering aspen saplings; ascend.
15.00	Top of ridge, 20 ft. above sec. cor., bears N.80°E. and S.80°W.; descend through dense aspen saplings, bears with ridge.
40.00	Set a sandstone, 24x14x10 ins., 18 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; from which An aspen, 4 ins. diam., bears N., 4 lks. dist., marked $\frac{1}{2}$ S. 26, B.T. An aspen, 4 ins. diam., bears S.4°E., 3 lks. dist., marked $\frac{1}{4}$ S. 35, B.T.
45.50	Bottom of hollow, 25 ft. below $\frac{1}{2}$ sec. cor., course N.20° E.; ascend.
64.50	Top of ridge, 300 ft. above hollow, bears N.E. and S.W.; descend.
78.90	Spring branch, 1 lk. wide, 2 ins. deep, in hollow, 200 ft. below ridge, course N.30°E.; ascend.
80.00	The cor. of secs. 26, 27, 34, and 35. Land, mountainous. Soil, black loam and gravelly; 1st and 3rd rate. Timber, scattering pine and aspen. Undergrowth, aspen saplings. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	N.0°01'W., bet. secs. 26 and 27. Over mountainous land; through scattering timber and scattering undergrowth; ascend.
20.50	Top of ridge, 200 ft. above sec. cor., bears N.20°E. and S.20°W.; descend through heavy timber, bears with ridge.
40.00	Set a sandstone, 18x10x8 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; from which

Subdivision of T.18 S., R.20 E.—Continued

Chains A pine, 12 ins. diam., bears N.35°E., 15 lks.

dist., marked \pm S.26, B.T.

A pine, 8 ins. diam., bears N.26°W., 6 lks.

dist., marked \pm S.27, B.T.

56.00 Bottom of hollow, 200 ft. below ridge, course N.E.; ascend.

80.00 Set a limestone, 20x18x5 ins., 15 ins. in the ground, for cor. of secs. 22, 23, 26, and 27, marked with 4 notches on S. and 2 notches on E. edges; from which

A long leaf pine, 30 ins. diam., bears N.50°E., 65

lks. dist., marked T.18 S., R.20 E., S.23, B.T.

A long leaf pine, 24 ins. diam., bears S.30°W.,

58 lks. dist., marked T.18 S., R.20 E., S.27, B.T.

A long leaf pine, 15 ins. diam., bears N.30°W., 50

lks. dist., marked T.18 S., R.20 E., S.22, B.T.

No other trees within limits; raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

Land, mountainous.

Soil, black loam and gravelly; 1st and 3rd rate.

Timber, long leaf pine, white pine, aspen, and balsom.

Undergrowth, oak and aspen saplings.

Good grass for grazing.

Mountainous or heavily timbered land, 80.00 chs.

July 20, 1901: At this cor. I set off 20° 42' N., on the decl. arc; and at 0 h 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39° 14' N.

N.89° 55' E., on a random line bet. secs. 23 and 26.

40.00 Set temp. \pm sec. cor.

80.00 Intersect N. and S. line, 5 lks. N. of the cor. of secs. 23, 24, 25, and 26.

Thence I run

S.89° 57' W., on a true line bet. secs. 23 and 26.

Over mountainous land; through scattering timber and dense undergrowth; ascend.

Subdivision of T. 18 S . R. 20 E. Continued

Chains	
4.00	Top of ridge, 50 ft. above sec.cor., bears N. 30° E. and S. 30° W.; descend . . .
15.00	Bottom of hollow, 100 ft. below ridge, course N. 20° E.; ascend . . .
56.00	Top of ridge, 400 ft. above hollow, bears N. and S.; descend . . .
39.70	Top of perpendicular cliff, 30 ft. high, bears N. and S.
40.04	Point for cor. falls on stationary ledge, 8x4x2 ft. above ground, on which I cut a cross at the exact cor. point, for $\frac{1}{2}$ sec.cor., mark $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
68.80	Creek, 2 lks. wide, 2 ins. deep, in bottom of canon, 600 ft. below ridge, course N. 30° E.; ascend through heavy timber bears with canon.
80.06	The cor. of secs. 22, 23, 26, and 27. Land, mountainous. Soil, black loam and gravelly; 1st and 3rd rate. Timber, pine and aspen. Undergrowth, choke cherry, oak and aspen saplings. Good grass for grazing. Mountainous or heavily timbered land, or land covered with dense undergrowth, 80.08 chs.
<hr/>	
	H. 0° 01' W., bet. secs. 22 and 23. Over mountainous land; through heavy timber and scattering undergrowth; ascend . . .
40.00	Set a sandstone, 18x9x8 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
62.00	Top of ridge, 300 ft. above sec.cor., bears N.E. and S.W.; descend . . .
80.00	Set a sandstone, 24x18x14x1 ins. 18 ins. in the ground,

Subdivision of T.18 S., R.20 E. -Continued.

Chains	for cor. of secs. 14, 15, 22, and 23, marked with 3 notches on S. and 2 notches on E. edges; from which An aspen, 6 ins. diam., bears N. 28° E., 24 lks. dist., marked T.18 S., R.20 E., S.14, B.T. An aspen, 5 ins. diam., bears S. 19° E., 20 lks. dist., marked T.18 S., R.20 E., S.23, B.T. An aspen, 5 ins. diam., bears S. 35° W., 46 lks. dist., marked T.18 S., R.20 E., S.22, B.T. An aspen, 8 ins. diam., bears N. 45° W., 32 lks. dist., marked T.18 S., R.20 E., S.15, B.T. Land, mountainous. Soil, black loam and gravelly; 1st and 3rd rate. Timber, pine and aspen. Undergrowth, oak choke cherry and aspen saplings. Good grass for grazing. Mountainous or heavily timbered land, 80.00 chs.
--------	--

	N. 89° 57' E., on a random line bet. secs. 14 and 23.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.00	Intersect N. and S. line, at the cor. of secs. 13, 14, 23, and 24. Thence I run S. 89° 57' W., on a true line bet. secs. 14 and 23. Over mountainous land; through scattering timber and scattering undergrowth; ascend
17.45	Top of ridge, 300 ft. above sec. cor., bears N. 15° E. and S. 15 ° W.; descend .
27.00	Bottom of canon, 500 ft. below ridge, course N.; ascend
40.00	Set a sandstone, 18x12x6 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
48.00	Enter heavy timber, bears N. and S.
62.25	Top of ridge, 600 ft. above canon, bears N.E. and S.W.; descend .
80.00	The cor. of secs. 14, 15, 22, and 23.

Subdivision of T. 18 S., R. 20 E.-Continued.

Chains	<p>Land, mountainous.</p> <p>Soil, sandy and gravelly loam; 2nd rate..</p> <p>Timber, pine and aspen..</p> <p>Undergrowth, oak and aspen saplings..</p> <p>Good grass for grazing..</p> <p>Mountainous or heavily timbered land, 80.00 chs.</p>
	July 20, 1901.
	<p>July 22, 1901: At 7 h 2 m a.m.l.m.t., I set off $39^{\circ}15'N.$, on the lat. arc; $20^{\circ}23'W.$, on the decl. arc; and determine a true meridian, with the solar, at the cor. of secs. 14, 15, 22, and 23.</p> <p>Thence I run</p> <p>$N.0^{\circ}01'W.$, bet. secs. 14 and 15.</p> <p>Over mountainous land; through heavy timber descend.</p>
10.00	<p>Bottom of hollow, 100 ft. below sec. cor., course $N.30^{\circ}E.$; leave heavy and enter scattering timber, bears with canon; ascend.</p>
37.00	<p>Top of ridge, 400 ft. above canon, bears E. and W.; descend.</p>
40.00	<p>Set a sandstone, $16 \times 12 \times 6$ ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; from which</p> <p>A long leaf pine, 12 ins. diam.; bears $S.10^{\circ}E.$, 240 lks. dist., marked $\frac{1}{4}$ S. 14, R.T.</p> <p>A long leaf pine, 16 ins. diam., bears $N.42^{\circ}W.$, 170 lks. dist., marked $\frac{1}{4}$ S. 15, R.T.</p>
40.60	<p>Bottom of hollow, 50 ft. below ridge, course E.; ascend.</p>
45.00	<p>Top of ridge, 60 ft. above hollow, bears E. and W.; descend.</p>
65.00	<p>Bottom of hollow, 500 ft. below ridge, course E.; ascend.</p>
80.00	<p>Set a sandstone, $20 \times 14 \times 6$ ins., 15 ins. in the ground, for cor. of secs. 10, 11, 14, and 15, marked with 4 notches on S. and 2 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.</p> <p>Land, mountainous.</p>

Subdivision of T.18 S., R.20 E.-Continued.

Chains	<p>Soil, sandy and gravelly loam; 2nd rate.</p> <p>Timber, cedar and pine and aspen.</p> <p>Good grass for grazing.</p> <p>Mountainous or heavily timbered land, 80.00 chs.</p>
	<hr/> <p>N.89° 57' E., on a random line bet. secs. 11 and 14.</p>
40.00	<p>Set temp. $\frac{1}{4}$ sec. cor.</p>
79.88	<p>Intersect N. and S. line, at the cor. of secs. 11, 12, 13, and 14.</p> <p>Thence I run</p> <p>S.89° 57' W., on a true line bet. secs. 11 and 14.</p> <p>Over mountainous land; through scattering timber and scattering undergrowth; ascend.</p>
28.00	<p>Top of ridge, 500 ft. above sec. cor., bears N. and S.;</p> <p>descend.</p>
39.94	<p>Set a sandstone, 18x9x6 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which</p> <p>An aspen, 6 ins. diam., bears N. 20° W., 20 lks.</p> <p>dist., marked $\frac{1}{4}$. S. 11, B.T.</p> <p>An aspen, 7 ins. diam., bears S. 10° E., 38 lks.</p> <p>dist., marked $\frac{1}{4}$ S. 14, B.T.</p>
41.20	<p>Bottom of canon, 500 ft. below ridge, course S. 10° E.; ascend.</p>
79.88	<p>The cor. of secs. 10, 11, 14, and 15.</p> <p>Land, mountainous.</p> <p>Soil, sandy and gravelly loam; 2nd rate.</p> <p>Timber, cedar, pine, and aspen.</p> <p>Undergrowth, oak and sage brush.</p> <p>Good grass for grazing.</p> <p>Mountainous land, 79.88 chs.</p>
	<hr/> <p>N.0° 01' W., bet. secs. 10 and 11.</p> <p>Over mountainous land; through scattering undergrowth and scattering timber; ascend.</p>
22.00	<p>Top of ridge, 500 ft. above sec. cor., bears N.E. and S.</p>

Subdivision of T. 18 S., R. 20 E.-Continued.

Chains W.; descend .

40.00 Set a sandstone, 20x12x5 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{\pi}{4}$ on W.face; from which A pine, 9 ins.diam., bears N.80° E., 52 lks. dist., marked $\frac{\pi}{4}$ S.11,B.T. A pine, 18 ins.diam., bears S.80° W., 54 lks. dist., marked $\frac{\pi}{4}$ S.10,B.T.

55.00 Bottom of canon, 1000 ft. below ridge, course West; ascend .

70.00 Top of ridge, 1000 ft. above canon, bears E.and W.; descend .

80.00 Set a sandstone, 22x12x10 ins., 16 ins. in the ground, for cor.of secs.2,3,10, and 11, marked with 5 notches on S.and 2 notches on E.edges; from which. A pine, 10 ins.diam., bears N.10° E., 12 lks. dist., marked T.18 S.,R.20 E.,S.2,B.T. A pine, 12 ins.diam., bears S.20° E., 25 lks. dist., marked T.18 S.,R.20 E.,S.11,B.T. A pine, 8 ins.diam., bears S.30° W., 45 lks. dist., marked T.18 S.,R.20 E.,S.10,B.T. A pine, 6 ins.diam., bears N.20° W., 79 lks. dist., marked T.18 S.,R.20 E.,S.5,B.T.

Land, mountainous.

Soil, sandy loam and rocky; 2nd and 4th rate.

Timber, pine, cedar and aspen.

Undergrowth, oak and sage brush.

Good grass for grazing.

Mountainous land, 80.00 chs.

July 22, 1901: At the noon hour the sky is overcast and solar observations are impossible.

N.89° 57'E., on a random line betsecs.2 and 11.

40.00 Set temp. $\frac{\pi}{4}$ sec.cor.

79.90 Intersect N.and S.line, 7 lks.S.of the cor.of secs. 1,2,11, and 12..

Thence I run

Subdivision of T. 18 S. R. 20 E.-Continued.

Chains	S.89°54'W., on a true line bet. secs. 2 and 11. Over mountainous land; through scattering timber and Scattering undergrowth; descend .
39.95	Set a sandstone, 18x9x6 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N.of cor.Pits impracticable.
55.00	Bottom of hollow, 400 ft. below sec.cor., course S.60°E.; ascend .
71.50	Top of ridge, 400 ft. above hollow, bears N.20°E. and S. 20°W.; descend .
79.90	The cor.of secs. 2,3,10, and 11. Land, mountainous. Soil, sandy loam and rocky; 2nd and 4th rate. Timber, cedar, pinion pine, and aspen. Undergrowth, sage brush and oak. Good grass for grazing. Mountainous land, 79.90 chs.
<hr/>	
40.00	N.0°01'W., on a random line bet.secs. 2 and 3. Set temp. $\frac{1}{4}$ sec.cor.
80.00	Intersect N.bdy.of Tp., 5 lks.E. of the cor.of secs. 2,3,34, and 35, heretofore described. Thence I run S.0°03'E., on a true line bet.secs. 2 and 3. Over mountainous land; through scattering timber and scattering undergrowth; ascend .
10.20	Top of ridge, 200 ft. above sec.cor., bears E. and W.; descend .
40.00	Set a sandstone, 24x10x8 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; from which A mahogany, 4 ins.diam., bears N.15°W., 40 lks. dist., marked $\frac{1}{4}$ S.3,B.T. No other trees within limits; raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W.of cor.Pits impracticable.

Subdivision of T.18 S., R.20 E., -Continued.

Chains

55.00 Bottom of hollow, 300 ft. below ridge, course West; ascend .

76.00 Top of ridge, 400 ft. above hollow, bears N. 75° E. and S. 75° W.; descend .

80.00 The cor. of secs. 2, 3, 10, and 11.

Land, mountainous.

Soil, sandy loam and rocky; 2nd and 4th rate.

Timber, mahogany, cedar, pinion pine, and aspen.

Undergrowth, sage and oak brush.

Good grass for grazing.

Mountainous land, 80.00 chs.

July 22, 1901.

July 23, 1901: At 7 h 4 m a.m., l.m.t., I set off 39° 12' N., on the lat. arc; 20° 11' N., on the decl. arc; and determine a true meridian with the solar at the cor. of secs. 3, 4, 33, and 34, on S. bdy. of Tp., heretofore described.

Thence I run

N. 0° 02' W., bet. secs. 33 and 34.

Over mountainous land; through dense undergrowth and scattering timber; descend .

3.00 Creek, 2 lks. wide, 2 ins. deep, in canon, 100 ft. below sec. cor., course W.; ascend .

19.87 Top of ridge, 300 ft. above canon, bears E. and W.; descend .

32.00 Bottom of hollow, 400 ft. below ridge, course W.; ascend .

40.00 Set a sandstone, 20x10x6 ins., 15 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

70.00 Top of ridge, 500 ft. above hollow, bears E. and W.; descend .

80.00 Set a sandstone, 18x10x6 ins., 12 ins. in the ground, for

Subdivision of T.18 S., R.20 E. -Continued

Chains	<p>cor. of secs. 27, 28, 33, and 34, marked with 1 notch on S. and 3 notches on E. edges; from which</p> <p>A long leaf pine, 4 ins. diam., bears N. 64° E., 65 lks. dist., marked T.18 S., R.20 E., S.27, B.T.</p> <p>A pine, 5 ins. diam., bears S. 55° E., 4 lks. dist., marked T.18 S., R.20 E., S.34, B.T.</p> <p>A red pine, 5 ins. diam., bears S. 87° W., 30 lks. dist., marked T.18 S., R.20 E., S.33, B.T.</p> <p>A red pine, 4 ins. diam., bears N. 57° W., 17 lks. dist., marked T.18 S., R.20 E., S.28, B.T.</p> <p>Land, mountainous.</p> <p>Soil, sandy and gravelly loam; 2nd rate.</p> <p>Timber, pine and aspen.</p> <p>Undergrowth, oak and sage brush.</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense undergrowth, \$0.00 chs</p>
	N. 89° 55' E., on a random line bet. secs. 27 and 34.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
60.06	Intersect N. and S. line, at the cor. of secs. 26, 27, 34, and 35.
	Thence I run
	S. 89° 55' W., on a true line bet. secs. 27 and 34.
	Over mountainous land; through scattering timber and scattering undergrowth; ascend .
6.00	Top of ridge, 100 ft. above sec. cor., bears N. and S.; descend .
40.05	Set a sandstone, 18x9x7 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
45.00	Bottom of hollow, 400 ft. below ridge, course N. 60° W.; ascend .
64.00	Top of ridge, 200 ft. above hollow, bears N. 20° W. and

Subdivision of T.18 S., R.20 E.-Continued.

Chains	S.20°E.; descend .
80.06	The cor.of secs.27,28 ,33, and 34. Land, mountainous. Soil, sandy loam and gravelly; 2nd and 3rd rate. Timber, pine, cedar, and aspen. Undergrowth, aspen saplings and oak. Good grass for grazing.. Mountainous land, 80.06 chs.
	N.0°02'W.,betsecs.27 and 28. Over mountainous land; through scattering timber and dense undergrowth;descend .
8.50	Bottom of hollow,400 ft.below sec.cor.,course N.80°W. Ascend .
24.50	Top of ridge,600 ft.above hollow,bears E.and W.;descend .
34.25	Bottom of hollow,200 ft.below ridge, course West;ascend .
40.00	Set a sandstone,15x8x6 ins.,10 ins.in the ground,for sec.cor.,marked $\frac{1}{2}$ on W.face;and raise a mound of stone,2 ft.base,1 $\frac{1}{2}$ ft.high,W.of cor.Pits impracticable.
48.00	Top of ridge,175 ft.above hollow,bears E.and W.;descend .
68.50	Creek,1 lk.wide,1 in.deep,in bottom of hollow,500 ft. below ridge, course West;ascend .
80.00	Set a sandstone,16x8x4 ins.,11 ins.in the ground,for cor.of secs.21,22,27, and 28,marked with 2 notches on S.and 3 notches on E.edges;from which A long leaf pine,40 ins.diam.,bears S.41° E., 43 lks.dist.,marked T.18 S.,R.20 E.,S.27,B.T. A long leaf pine,30 ins.diam.,bears S.75° W., 75 lks.dist.,marked T.18 S.,R.20 E.,S.28,B.T. A long leaf pine,36 ins.diam.,bears N.53° W., 135 lks.dist.,marked T.18 S.,R.20 E.,S.21,B.T.

Subdivision of T.18 S., R.20 E.-Continued.

Chains No other trees within limits; raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
Land, mountainous.
Soil, sandy loam and rocky; 2nd and 4th rate.
Timber, cedar, pine and aspen.
Undergrowth, oak and sage brush.
Good grass for grazing.
Mountainous land, or land covered with dense undergrowth, 80.00 chs.
July 25, 1901: At the noon hour the sky is overcast and solar observations are impossible.

N. $89^{\circ} 55' E.$, on a random line bet. secs. 22 and 27.
40.00 Set temp. $\frac{1}{4}$ sec. cor.
79.96 Intersect N. and S. line, 12 lks. N. of the cor. of secs. 22, 23, 26, and 27.
Thence I run
West, on a true line bet. secs. 22 and 27.
Over mountainous land; through heavy timber and scattering undergrowth; ascend ..
57.00 Top of ridge, 500 ft. above sec. cor., bears N. $10^{\circ} W.$ and S. $10^{\circ} E.$; descend. Leave heavy timber, bears with ridge.
59.98 Set a limestone, 18x9x7 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
50.00 Enter scattering timber, bears N. and S.
79.96 The cor. of secs. 21, 22, 27, and 28..
Land, mountainous.
Soil, black loam and rocky; 1st and 3rd rate.
Timber, pine and aspen.
Undergrowth, sage and oak brush.
Good grass for grazing..
Mountainous or heavily timbered land, 79.96 chs.

Subdivision of T 18 S R 20 E.-Continued

Chains	N.0°02'W., bet. secs. 21 and 22. Over mountainous land; through dense undergrowth and scattering timber; ascend.
8.50	Top of ridge, 200 ft. above sec. cor., bears E. and W.; descend.
28.75	Creek, 1 lk. wide, $\frac{1}{2}$ in. deep, in canon, 600 ft. below ridge, course W.; ascend.
40.00	Set a sandstone, 30x14x4 ins., 22 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; from which A long leaf pine, 20 ins. diam., bears S.30°E., 110 lks. dist., marked $\frac{1}{4}$ S.22, B.T. A white pine, 10 ins. diam., bears S.84°W., 130 lks. dist., marked $\frac{1}{4}$ S.21, B.T.
40.50	Foot of perpendicular ledge, 30 ft. high, bears E. and W.
46.00	Top of ridge, 300 ft. above canon, bears E. and W.; descend.
54.25	Bottom of hollow, 300 ft. below ridge, course West; ascend.
73.60	Top of ridge, 500 ft. above hollow, bears N.70°W. and S.70°E.; descend.
80.00	Set a sandstone, 30x24x5 ins., 22 ins. in the ground, for cor. of secs. 15, 16, 21, and 22, marked with 18 S. on N.E. and 20 E. on S.E. faces; with 3 notches on S. and 3 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	Land, mountainous.
	Soil, sandy loam and gravelly; 2nd and 3rd rate.
	Timber, cedar and pine.
	Undergrowth, oak, maple, and sage brush.
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth, 80.00 chs.
	July 23, 1901: At the cor. of secs. 15, 16, 21, and 22, latitude 39°15'N., longitude 109°44'W., I set off 39°15'N., on the lat. arc; 20°5'N., on the decl. arc; and at

Subdivision of T.18 S., R.20 E.-Continued.

Chains	5 h 0 m p.m., l.m.t., I determine a true meridian, with the solar, and mark a point thereof on a stone, firmly set in the ground, 5.00 chs. N. of cor. At 11 h 21 m p.m., l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual, and mark a point in the line thus determined by a tack driven in a wooden plug, set in the ground, 5.00 chs. N. of the cor.
--------	--

July 23, 1901.

July 24, 1901: At 6 h 30 m a.m., l.m.t., I lay off the azimuth of Polaris $1^{\circ} 34.3'$ to the west, and mark a point in the true meridian thus determined, by cutting a small groove in the stone already set 5.00 chs. N. of my station; this mark falls 0.32 ins. east of the true meridian determined with the solar.

At 7 h 2 m a.m., l.m.t., I set off $39^{\circ} 15' N.$, on the lat. arc; $19^{\circ} 59' N.$, on the decl. arc; and determine a true meridian, with the solar, and mark a point thereof by a cross on the stone already set 5.00 chs. N. of my station; this mark falls 0.32 ins. east of the true meridian established by Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 7 h 2 m a.m., is $15^{\circ} 51.6' W.$, the angle thus determined, reduced by the table page 100 of the Manual, gives the mean mag. decl. $15^{\circ} 46' E.$

From the cor. described above, I run
East, on a random line bet. secs. 15 and 22.

40.00 Set temp. $\frac{1}{2}$ sec. cor.

80.00 Intersect N. and S. line, at the cor. of secs. 15, 14, 23, and 22.

Thence I run

Subdivision of T.18 S., R.20 E.-Continued.

- Chains West, on a true line bet. secs. 15 and 22.
Over mountainous land; through heavy timber and scattering undergrowth; descend .
- 3.00 Bottom of canon, 100 ft. below sec. cor., course N.30°E.; ascend .
- 32.00 Top of ridge, 800 ft. above hollow, bears N.20°E. and S.20°W.; descend .
- 39.25 Bottom of hollow, 50 ft. below ridge, course N.20°E.; ascend .
- 40.00 Set a sandstone, 18x12x8 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; from which
An aspen, 5 ins. diam., bears N.5°E., 90 lks. dist., marked $\frac{1}{2}$ S.15, B.T.
An aspen, 14 ins. diam., bears S.15°E., 110 lks. dist., marked $\frac{1}{2}$ S.22, B.T.
- 44.00 Top of ridge, 100 ft. above hollow, bears N. and S.; leave timber, bears with ridge; descend .
- 80.00 The cor. of secs. 15, 16, 21, and 22.
Land, mountainous.
Soil, black loam and gravelly; 1st and 3rd rate.
Timber, pine and aspen.
Undergrowth, oak, maple, and aspen saplings.
Good grass for grazing.
Mountainous or heavily timbered land, 80.00 acs.
-
- N.0°02'W., bet. secs. 15 and 16.
Over mountainous land, through dense undergrowth; descend .
- 19.50 Bottom of canon, 600 ft. below sec. cor., course N.80°W.; ascend .
- 40.00 Set a sandstone, 15x10x4 ins., 10 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
- 42.30 Top of ridge, 600 ft. above canon, bears E. and W.; des-

Subdivision of T 18 S., R. 20 E. -Continued.

Chains	cend .
50.00	Bottom of hollow, 200 ft. below ridge, course N.W.; descend .
71.10	Top of ridge, 100 ft. above hollow, bears N.W. and S.E.; descend .
80.00	Set a sandstone, 16x8x6 ins., 11 ins. in the ground, for cor. of secs. 9, 10, 15, and 16, marked with 4 notches on S. and 3 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	Land, mountainous .
	Soil, sandy loam and rocky; 2nd and 4th rate.
	No timber.
	Undergrowth, aspen saplings and oak.
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth, 80.00 chs.
<hr/>	
	East, on a random line bet. secs. 10 and 15.
40.00	Set temp. $\frac{1}{2}$ sec. cor.
80.06	Intersect N. and S. line, 10 lks. S. of the cor. of secs. 10, 11, 14, and 15.
	Thence I run S. $89^{\circ} 56' W.$, on a true line bet. secs. 10 and 15.
	Over mountainous land; through scattering timber and scattering undergrowth; ascend .
24.00	Top of ridge, 500 ft. above sec. cor., bears N. $20^{\circ} E.$ and S. $20^{\circ} W.$; descend .
40.05	Set a sandstone, 20x12x5 ins., 15 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
65.00	Bottom of canon, 800 ft. below ridge, course N.W.; ascend .
80.06	The cor. of secs. 9, 10, 15, and 16.

Subdivision of T.18 S .R.20 E. -Continued.

Chains	<p>Land, mountainous.</p> <p>Soil, sandy loam and rocky; 2nd and 4th rate.</p> <p>Timber, scattering pine and aspen.</p> <p>Undergrowth, oak and deer brush.</p> <p>Good grass for grazing.</p> <p>Mountainous land, 80.06 chs.</p> <p>July 24, 1901: At the noon hour the sky is overcast and solar observations are impossible.</p> <hr/> <p>N.0°02'W., bet. secs. 9 and 10.</p> <p>Over mountainous land; through dense undergrowth and scattering timber; descend.</p>
16.00	Bottom of canon, 500 ft. below sec. cor., course N.W.; ascend.
32.00	Top of ridge, 250 ft. above canon, bears E. and W.; descend.
39.00	Foot of descent, 300 ft. below ridge, bears N.50°E. and S.50°W.; enter bottom of Willow Creek Canon.
40.00	Falls on stationary boulder, 6x6x2 ft. above ground,, on which
	I cut a cross at the exact cor. point for $\frac{1}{4}$ sec. cor., mark $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
45.00	Willow Creek, 10 lks. wide, 5 ins. deep, course N.E.
54.00	Leave canon, bears N.E. and S.W.; ascend.
68.25	Top of ridge, 600 ft. above canon, bears E. and W.; descend.
80.00	Set a sandstone, 18x10x8 ins., 12 ins. in the ground, for cor. of secs. 3, 4, 9, and 10, marked with 5 notches on S. and 3 notches on E. edges; from which
	A pine, 12 ins. diam., bears N.10°E., 65 lks. dist., marked T.18 S., R.20 E., S.3, B.T.
	A pine, 12 ins. diam., bears S.65°E., 28 lks. dist., marked T.18 S., R.20 E., S.10, B.T.
	No other trees within limits; raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

Subdivision of T. 18 S. R. 20 E -Continued

Chains	<p>Land, mountainous.</p> <p>Soil, sandy loam and rocky; 2nd and 4th rate.</p> <p>Timber, cedar, pinion pine, white pine, and aspen.</p> <p>Undergrowth, oak, deer brush, and sage brush.</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense undergrowth, 80.00 chs.</p> <hr/>
40.00	<p>N. 89° 56' E., on a random line bet. secs. 3 and 10.</p> <p>Set temp. $\frac{1}{4}$ sec. cor.</p>
80.00	<p>Intersect N. and S. line, at the cor. of secs. 2, 3, 10, and 11.</p> <p>Thence I run</p> <p>S. 89° 56' W., on a true line bet. secs. 3 and 10.</p> <p>Over mountainous land; through scattering timber and scattering undergrowth; descend.</p>
40.00	<p>Set a sandstone, 18x12x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which</p> <p>A mahogany, 6 ins. diam., bears N., 100 lks. dist., marked $\frac{1}{4}$ S. 3, B.T.</p> <p>A mahogany, 5 ins. diam., bears S. 45° E., 125 lks. dist., marked $\frac{1}{4}$ S. 10, B.T.</p>
58.00 62.00	<p>Foot of descent, bears N. 20° E. and S. 20° W. Enter Canon. Willow Creek, 15 lks. wide, 6 ins. deep, rapid current, in bottom of Willow Creek Canon, 900 ft. below sec. cor.</p>
65.00	<p>Ascend, leave canon, bears N. 20° E. and S. 20° W.</p>
60.00	<p>The cor. of secs. 3, 4, 9, and 10.</p> <p>Land, mountainous.</p> <p>Soil, sandy loam and gravelly; 2nd and 3rd rate.</p> <p>Timber, cedar, pinion pine, and aspen.</p> <p>Undergrowth, mahogany, oak, maple, and aspen saplings.</p> <p>Good grass for grazing.</p> <p>Mountainous land, 80.00 chs.</p> <hr/>
	<p>N. 0° 02' W., on a random line bet. secs. 3 and 4.</p>

Subdivision of T.18 S., R.20 E.-Continued

Chains

- 40.00 Set temp. $\frac{1}{2}$ sec. cor.
- 80.10 Intersect N.bdy.of Tp., at the cor.of secs., 3, 4, 33,
and 34, heretofore described.
Thence I run
 $5.0^{\circ} 02' E.$, on a true line bet. secs. 3 and 4.
Over mountainous land; through scattering timber and
scattering undergrowth; ascend .
1.25 Top of ridge, 25 ft. above sec.cor., bears E. and W.; des-
cend .
10.00 Bottom of hollow, 100 ft. below ridge, course N. $80^{\circ} E.$;
ascend .
40.10 Set a sandstone, 18x8x6 ins., 12 ins. in the ground, for
 $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of
stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impractic-
able.
44.00 Top of ridge, 500 ft. above hollow, bears N. $30^{\circ} W.$ and S.
 $30^{\circ} E.$; descend .
69.00 Bottom of canon, 900 ft. below ridge, course S. $80^{\circ} E.$;
ascend .
80.10 The cor.of secs. 3, 4, 9, and 10.
Land, mountainous.
Soil, sandy loam and rocky; 2nd and 4th rate.
Timber, pinion pine and cedar.
Undergrowth, oak.
Good grass for grazing..
Mountainous land, 80.10 chs.

July 24, 1901.

July 25, 1901: At 7 h 3 m a.m., l.m.t., I set off $39^{\circ} 12'$
N., on the lat.arc; $19^{\circ} 46' E.$, on the decl.arc; and de-
termined a true meridian, with the solar at the cor.
of secs. 4, 5, 32, and 33, on S.bdy.of Tp., heretofore des-
cribed.

Thence I run

Subdivision of T. 18 S., R. 20 E.-Continued.

Chains	N. 0° 03' W., bet. secs. 32 and 33. Over mountainous land; through scattering timber and scattering undergrowth; ascend.
5.00	Top of ridge, 200 ft. above sec. cor., bears E. and W.; descend.
21.00	Bottom of hollow, 300 ft. below ridge, course E.; ascend. A corral and spring bears E. about 5.00 chs. dist.
40.00	Set a sandstone, 18x9x8 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
69.00	Top of ridge, 400 ft. above hollow, bears N. 30° E. and S. 30° W.; descend.
80.00	Set a sandstone, 24x12x10 ins., 18 ins. in the ground, for cor. of secs. 28, 29, 32, and 33, marked with 1 notch on S. and 4 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	Land, mountainous.
	Soil, sandy loam and rocky; 2nd and 4th rate.
	Timber, cedar and pinon pine.
	Undergrowth, oak.
	Good grass for grazing.
	Mountainous land, 80.00 chs.

	N. 89° 55' E., on a random line bet. secs. 28 and 33.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.12	intersect N. and S. line, at the cor. of secs. 27, 28, 33, and 34.
	Thence I run
	S. 89° 55' W., on a true line bet. secs. 28 and 33.
	Over mountainous land; through scattering timber and scattering undergrowth; descend abruptly.
30.00	Foot of descent, 800 ft. below sec. cor., bears N. and S.
	Enter bottom of Willow Creek Canon.
31.00	Trail in canon, bears N. and S.

Subdivision of T.18 S., R.20 E. -Continued.

Chains	
32.00	Willow Creek, 10 lks. wide, 6 ins. deep, rapid current, sandy bottom, course N.
34.00	Leave canon bottom, bears N. and S.; ascend.
40.06	Set a sandstone, 16x12x10 ins., 11 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; from which A pine, 20 ins. diam., bears N. 70° E., 70 lks. dist., marked $\frac{1}{2}$ S. 28, B.T. A pine, 18 ins. diam., bears S. 60° E., 83 lks. dist., marked $\frac{1}{2}$ S. 33, B.T.
69.80	Top of ridge, 150 ft. above sec. cor., bears N. 50° E. and S. 30° W.; descend.
80.12	The cor. of secs. 28, 29, 32, and 33. Land, mountainous. Soil, sandy loam and rocky; 2nd and 4th rate. Timber, pine and aspen. Undergrowth, oak and deer brush. Good grass for grazing. Mountainous land, 80.12 chs.
<hr/>	
	N. $0^{\circ} 03' W.$, bet. secs. 28 and 29. Over mountainous land; through scattering timber and scattering undergrowth; descend.
17.50	Bottom of hollow, 300 ft. below sec. cor., course W.; ascend.
34.00	Top of ridge, 400 ft. above hollow, bears N. 40° W. and S. 40° E.; descend.
40.00	Set a sandstone, 20x10x9 ins., 15 ins., in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
51.00	Bottom of hollow, 350 ft. below ridge, course E.; ascend.
75.78	Top of ridge, 400 ft. above hollow, bears N. 30° E. and S. 30° W.; descend.
80.00	Set a sandstone, 18x8x6 ins., 12 ins. in the ground, for

Subdivision of T. 18 S., R. 20 E -Continued

Chains	cor. of secs. 20, 21, 28, and 29, marked with 2 notches on S. and 4 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
	Land, mountainous.
	Soil, sandy loam and rocky; 2nd and 4th rate.
	Timber, pine and aspen.
	Undergrowth, oak and deer brush.
	Good grass for grazing.
	Mountainous land, 80.00 chs.
	July 25, 1901: At this cor. I set off $19^{\circ}42'N.$, on the decl. arc; and at 0 h 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $39^{\circ}14'N.$
	<hr/>
	N. $89^{\circ}55'E.$, on a random line bet. secs. 21 and 28.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.10	Intersect N. and S. line, at the cor. of secs. 21, 22, 27, and 28.
	Thence I run
	S. $89^{\circ}55'W.$, on a true line bet. secs. 21 and 28.
	Over mountainous land; through dense undergrowth and scattering timber; descend.
28.00	Foot of descent, 500 ft. below sec. cor., bears N. and S.; enter bottom of Willow Creek Canon.
29.00	Creek, 6 lks. wide, 4 ins. deep, rapid current, in bottom course N.
33.50	Leave canon bottom, bears N. and S.; ascend.
34.20	Foot of perpendicular ledge, 50 ft. high, bears N. and S.
40.05	Set a sandstone, 18x9x6 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
78.00	Top of ridge, 1000 ft. above canon, bears N. $30^{\circ}E.$ and S. $30^{\circ}W.$; descend.
80.10	The cor. of secs. 20, 21, 28, and 29.

Subdivision of T.18 S., R.20 E.-Continued.

Chains	Land, mountainous . . . Soil, gravelly and rocky; 3rd and 4th rate. Timber, cedar, pinion pine, and aspen. Undergrowth, oak and maple. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.10 chs..
	N. 0° 03' W., bet. secs. 20 and 21. Over mountainous land; through dense undergrowth and scattering timber; descend along west side of ridge.
40.00	Set a sandstone, 18x9x8 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{4}$ on W. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
80.00	Set a sandstone, 18x12x10 ins., 12 ins. in the ground, for cor. of secs. 16, 17, 20, and 21, marked with 3 notches on S. and 4 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	Land, mountainous. Soil, gravelly and rocky; 3rd and 4th rate. Timber, cedar and pine. Undergrowth, sage and oak brush. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.00 chs..
	N. 89° 55' E., on a random line bet. secs. 16 and 21.
40.00	Set temp. $\frac{1}{2}$ sec. cor.
80.04	Intersect N. and S. line, 12 lks. N. of the cor. of secs. 15, 16, 21, and 22. Thence I run West, on a true line bet. secs. 16 and 21. Over mountainous land; through dense undergrowth and

Subdivision of T. 18 S., R. 20 E.-Continued.

Chains	scattering timber; ascend .
20.00	Top of ridge, 100 ft. above sec.cor., bears N. 80° W. and S. 80° E.; descend .
34.00	Foot of descent, 800 ft. below ridge, bears N. 20° W. and S. 20° E.; enter bottom of Willow Creek Canon,
38.00	Trail in canon, bears N. 20° E. and S. 20° W.
40.02	Set a sandstone, 30x24x4 ins., 22 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
.40.80	Willow Creek, 6 lks. wide, 6 ins. deep, course N.:
41.50	Leave canon bottom, bears N. and S.; ascend abruptly .
55.00	Top of ridge, 500 ft. above canon, bears N. and S.; descend .
77.50	Old pole fence, bears N.W. and S.E.
80.04	The cor.of secs. 16, 17, 20, and 21. Land, mountainous. Soil, black loam and rocky; 1st and 4th rate. Timber, pine and aspen. Undergrowth, aspen saplings and oak. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.04 chs.

July 25, 1901.

July 26, 1901: At 7 h 3 m a.m., 1.m.t., I set off 39° 15' N., on the lat.arc; 19° 33' N., on the decl.arc; and determine a true meridian, with the solar, at the cor. of secs. 16, 17, 20, and 21.

Thence I run

N. 0° 05' W., bet. secs. 16 and 17.

Over mountainous land; through dense undergrowth and scattering timber ; descend .

1.00 Creek, 3 lks. wide, 2 ins. deep, in bottom of canon, 10 ft. below sec.cor., course N. 85° E.; ascend .

1.10 Fence, bears N.W. and S.E.

Subdivision of T.18 S., R.20 E.-Continued.

Chains	
34.00	Top of ridge, 800 ft. above canon, bears N.80°E. and S.80°W.; descend .
40.00	Set a sandstone, 18x9x8 ins., 12 ins. in the ground, for sec.cor., marked $\frac{1}{2}$ on W.face; and raise a mound of stew, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W.of cor. Pits impractic- able.
53.00	Bottom of hollow, 500 ft. below ridge, course S.80°E.; ascend .
66.25	Top of ridge , 400 ft. above hollow, bears N.65°W. and S.65°E.;descend .
80.00	Set a sandstone, 20x12x4 ins., 15 ins. in the ground, for cor.of secs.8,9,16, and 17, marked with 4 notches on S. and 4 notches on E.edges; from which An aspen, 4 ins.diam., bears N.15°E., 25 lks. dist., marked T.1 $\frac{1}{2}$ S.,R.20 E.,S.9,B.T. An aspen, 4 ins.diam., bears S.70°E., 16 lks. dist., marked T.18 S.,R.20 E.,S.16,B.T. An aspen, 8 ins.diam., bears S.15°W., 15 lks. dist., marked T.18 S.,R.20 E.,S.17,B.T. A pine, 5 ins.diam., bears N.80°W., 30 lks. dist., marked T.18 S.,R.20 E.,S.8,B.T. Land, mountainous .
	Soil, sandy loam and rocky; 2nd and 4th rate.
	Timber, cedar and pinion pine.
	Undergrowth,sage brush and oak brush.
	Good grass for grazing.
	Mountainous land,or land covered with dense under- growth, 80.00 chs. .
	East;on a random line betsecs.9 and 16.
40.00	Set temp. $\frac{1}{2}$ sec.cor.
80.00	Intersect N.and S.line,at the cor.of secs.9,10,15, and 16.
	Thence I run

Subdivision of T.18 S., R.20 E.-Continued.

Chains	West, on a true line bet. secs. 9 and 16. Over mountainous land, through scattering timber and scattering undergrowth; ascend .
10.00	Top of ridge, 300 ft. above sec. cor., bears N.W. and S.E.; Descend .
37.00	Foot of descent, 700. ft. below ridge, bears N. and S.; enter bottom of Willow Creek Canon.
38.50	Trail in canon, bears N. and S..
39.10	Willow Creek, 8 lks. wide, 4 ins. deep, course N.
39.85	Leave canon bottom, bears N. and S. ascend .
40.00	Set a sandstone, 16x12x4 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face; from which A pine, 14 ins. diam., bears N. 20° W., 105 lks. dist., marked $\frac{1}{4}$ S. 9, B.T. An aspen, 4 ins. diam., bears S. 65° W., 140 lks. dist., marked $\frac{1}{4}$ S. 16, B.T.
80.00	the cor. of secs. 8, 9, 16, and 17. Land, mountainous. Soil, sandy loam and rocky; 2nd and 4th rate. Timber, cedar and pinion pine. Undergrowth, sage and oak brush. Good grass for grazing. Mountainous land, 80.00 chs. July 26, 1901: At this cor. I set off $19^{\circ} 29' N.$, on the decl. arc; and at 0 h 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $39^{\circ} 16' N.$

N. $0^{\circ} 03' W.$, bet. secs. 8 and 9.
Over mountainous land; through dense aspen saplings; and scattering timber ;descend .
1.00 Bottom of hollow, 10 ft. below sec. cor., course N. 80° E.; ascend .
8.00 Top of ridge, 150 ft. above hollow, bears N.W. and S.E.; descend .
15.00 Bottom of hollow, 150 ft. below ridge, course S. 35° E.;

Subdivision of T. 18 S., R. 20 E. -Continued.

- Chains ascend .
- 33.10 Top of ridge, 600 ft. above hollow, bears N.75°W. and S.75°E.; descend .
- 40.00 Set a sandstone, 16x9x5 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W. face; from which
An aspen, 4 ins. diam., bears E., 20 lks. dist.,
marked $\frac{1}{4}$ S.9,B.T.
An aspen, 4 ins. diam., bears N.W., 25 lks.
dist., marked $\frac{1}{4}$ S.8,B.T.
- 47.00 Bottom of hollow, 500 ft. below ridge, course S.80°E.;
ascend .
- 62.70 Top of ridge, 500 ft. above hollow, bears N.40°E. and S.40°W.; descend .
- 80.00 Set a sandstone, 24x10x6 ins., 18 ins. in the ground,
for cor.of secs.4,5,8, and 9, marked with 5 notches on
S. and 4 notches on E.edges; from which
A pine, 7 ins. diam., bears N.50°E., 20 lks.
dist., marked T.18 S.,R.20 E.,S.4,B .T.
A pine, 14 ins. diam., bears S.55°E., 25 lks.
dist., marked T.18 S.,R.20 E.,S.9,B.T.
An aspen, 4 ins. diam., bears S.75°W., 40 lks.
dist., marked T.18 S.,R.20 E.,S.8,B.T.
A pine, 5 ins. diam., bears N.80°W., 43 lks.
dist., marked T.18 S.,R.20 E.,S.5,B.T.
This cor.is in canon, 300 ft. below ridge, course N.50°E.
Land, mountainous.
- Soil, gravelly and rocky; 3rd and 4th rate.
- Timber, pine and aspen.
- Undergrowth, oak and deer brush.
- Good grass for grazing.
- Mountainous land, or land covered with dense under-growth, 80.00 chs.
-
- East, on a random line bet.secs.4 and 9.
- 40.00 Set temp. $\frac{1}{4}$ sec.cor.
- 80.28 Intersect N.and S.line, 14 lks.S.of the cor.of secs.

Subdivision of T.18 S., R.20 E.-Continued.

Chains 3,4,8, and 10.

Thence I run.

S.89° 54' E., on a true line bet. secs. 4 and 9.

Over mountainous land; through scattering timber and scattering undergrowth; ascend.

31.75 Top of ridge, 850 ft. above sec.cor., bears N.W. and S.E.

Descend.

40.14 Set a sandstone, 24x12x8 ins., 18 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N. face; from which

A pine, 6 ins. diam., bears N. 12° E., 28 lks.

Dist., marked $\frac{1}{4}$ S. 4, B.T.

A cedar, 18 ins. diam., bears S. 35° W., 20 lks.

dist., marked $\frac{1}{4}$ S. 9, B.T.

42.00 Bottom of hollow, 200 ft. below ridge, course S.E.; ascend.

57.00 Top of ridge, 300 ft. above hollow, bears N. 10° E. and S. 10° W.; descend.

80.26 The cor. of secs. 4, 5, 8, and 9.

Land, mountainous.

Soil, sandy loam and gravelly; 2nd and 3rd rate.

Timber, cedar, aspen, and pine.

Undergrowth, oak and deer brush.

Good grass for grazing.

Mountainous land, 80.28 chs.

N.0° 03' W., on a random line bet. secs. 4 and 5.

40.00 Set temp. $\frac{1}{2}$ sec.cor.

80.08 Intersect N.bdy. of Tp., 7 lks. E. of the cor.of secs. 4, 5, 32, and 33, heretofore described.

Thence I run

S.6° 06' E., on a true line bet. secs. 4 and 5.

Over mountainous land; through scattering undergrowth; along side hill sloping east.

80.00 Enter scattering timber, bears E. and W.

40.08 Set a sandstone, 14x10x9 ins., 9 ins. in the ground, for

Subdivision of T. 16 S., R. 20 E. -Continued

Chains	$\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; from which An aspen, 8 ins. diam., bears N. 46° E., 100 lks. dist., marked $\frac{1}{4}$ S. 4, B.T. An aspen, 5 ins. diam., bears S. 60° W., 150 lks. dist., marked $\frac{1}{4}$ S. 5, B.T.
80.08	The cor.of secs.4,5,8, and 9. Land, mountainous. Soil, sandy loam and gravelly; 2nd and 3rd rate. Timber, pine and aspen. Undergrowth, aspen saplings: and oak. Good grass for grazing. Mountainous land, 80.08 chs.

July 26, 1901.

July 27, 1901: At 8 h C m a., m., l.m.t., I set off 39°
12'N., on the lat.arc; 19° 18'N., on the decl.arc; and
determine a true meridian, with the solar at the cor.
of secs.5,6,31, and 32, on S.bdy.of Tp., heretofore
described.

Thence I run

N. 0° 03'W., bet. secs.31 and 32.

Over mountainous land; through dense undergrowth and
scattering timber ;ascend .

54.00 Top of ridge, 300 ft. above sec.cor., bears N.E. and
S.W.; descend.

40.00 Set a sandstone, 18x12x4 ins., 12 ins. in the ground,
for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of
stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor.Pits impracticable.

59.50 Creek, 1 lk.wide, 2 ins.deep, in canon, 400 ft. below ridge,
course N. 45° W.; ascend .

80.00 Set a sandstone, 18x14x10 ins., 12 ins. in the ground,
for cor.of secs.29,30,31, and 32, marked with 1 notch
on S.and 5 notches on E.edges; and raise a mound of
stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor.Pits impracticable.
Land, mountainous.

Soil, sandy loam and rocky; 2nd and 4th rate.

Timber, pine and aspen.

Subdivision of f.18 S., R.26 E.-Continued.

Chains Undergrowth, oak and deer brush.

Good grass for grazing.

Mountainous land, or land covered with dense undergrowth, 80.00 ft.

N.80°55'E., on a random line bet. secs. 29 and 32.

40.00 Set temp. $\frac{1}{2}$ sec. cor.

80.04 Intercept N. and S. line, 2 lks. N. of the cor. of secs.

28, 29, 32, and 33.

Thence I run

S.89°56'W., on a true line bet. secs. 29 and 32.

Over mountainous land, through scattering timber and dense undergrowth, descend.

8.00 Bottom of canon, 200 ft. below sec. cor., course N.W.; ascend.

24.55 Top of ridge, 200 ft. above hollow, bears N. and S.; descend.

36.00 Top of perpendicular ledge, 25 ft. high, bears N. and S.

40.02 Set a sandstone, 18x10x4 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.

48.00 Bottom of hollow, 200 ft. below ridge, course N.W.; ascend.

70.00 Top of ridge, 250 ft. above hollow, bears N. and S.; descend.

80.04 The cor. of secs. 29, 30, 31, and 32.

Land, mountainous.

Soil, gravelly; 3rd rate.

Timber, pine and aspen.

Undergrowth, oak and deer brush.

Good grass for grazing.

Mountainous land, or land covered with dense under-

80.04 chs.

Subdivision of T.18 S., R.20 E., Continued.

Chains	S.89° 55' W., on a random line bet. secs. 30 and 31.
40.00	Set temp. $\frac{1}{2}$. sec. cor.
79.90	Intersect W. bdy. of Tp., 7 lks. S. of the cor. of secs. 25, 30, 31, and 36, heretofore described. Thence I run N.89° 58' E., on a true line bet. secs. 30 and 31. Over mountainous land; through dense undergrowth and scattering timber; descend .
14.25	Creek, 3 lks. wide, 1 in. deep, in bottom of Pioche Canon, 100 ft. below sec. cor., course N.20° E.; ascend .
39.90	Mormon Ridge, 500 ft. above hollow, bears N. and S.: Set a sandstone, 18x8x8 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impractic- able. Descend .
77.00	Bottom of hollow, 400 ft. below ridge, course N.E.; as- cend .
79.90	The cor. of secs. 29, 30, 31, and 32. Land, mountainous. Soil, sandy loam and gravelly; 2nd and 3rd rate. Timber, cedar and pine and aspen. Undergrowth, sage brush, aspen saplings and oak. Good grass for grazing. Mountainous land, or land covered with dense under- growth, 79.90 chs. July 27, 1901: At the noon hour the sky is overcast and solar observations are impossible.
3.00	N.0° 03' W., bet. secs. 29 and 30. Over mountainous land; through dense undergrowth and scattering timber; descend .
40.00	Bottom of hollow, 25 ft. below sec. cor., course N.E.; ascend .
	Set a sandstone, 18x9x7 ins., 12 ins. in the ground, for

Subdivision of T. 18 S., R. 20 E.-Continued.

Chains	$\frac{1}{2}$ sec.cor., marked $\frac{1}{4}$ on W.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable.
80.00	Set a sandstone, 20x14x4 ins., 15 ins. in the ground, for cor.of secs. 19, 20, 29, and 30, marked with 2 notches on S. and 5 notches on E.edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W.of cor. Pits impracticable. Land, mountainous.
	Soil, sandy and gravelly; 3rd rate.
	Timber, pine and aspen.
	Undergrowth, sage brush and deer brush.
	Good grass for grazing.
	Mountainous land, or land covered with dense undergrowth, 80.00 chs.
<hr/>	
	N. $89^{\circ} 56' E.$, on a random line bet.secs. 20 and 29.
40.00	Set temp. $\frac{1}{2}$ sec.cor.
80.02	Intersect N. and S.line, 10 lks. N.of the cor.of secs. 20, 21, 28, and 29.
	Thence I run
	West ,on a true line bet.secs. 20 and 29.
	Over mountainous land; through dense undergrowth and scattering timber; descend.
40.01	Set a sandstone, 18x9x7 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable.
52.00	Bottom of hollow, 500 ft. below sec.cor., course N.; ascend .
80.02	The cor.of secs. 19, 20, 29, and 30.
	Land, mountainous.
	Soil, sandy and gravelly; 3rd rate.
	Timber, pine and aspen.
	Undergrowth, oak and aspen saplings.
	Good grass for grazing.

Subdivision of T. 18 S., R. 20 E. -Continued.

Chains	Mountainous land, or land covered with dense under-growth, 80.02 chs.
	S.89° 56' W., on a random line bet. secs. 19 and 30.
40.00	Set temp. $\frac{1}{2}$ sec. cor.
79.80	Intersect W. bdy. of Tp., 18 lks. N. of the cor. of secs. 19, 24, 25, and 30, heretofore described. Thence I run S.89° 55' E., on a true line bet. secs. 19 and 30. Over mountainous land; through scattering timber and scattering undergrowth; descend.
19.50	Creek, 3 lks. wide, 4 ins. deep, rapid current, in bottom of Pioche Canon, 600 ft. below sec. cor., course N.25° E.; ascend.
31.00	Top of ridge, 300 ft. above canon, bears N.25° E. and S. 25° W.; descend.
39.00	Creek, 3 lks. wide, 5 ins. deep, in canon, 300 ft. below ridge, course N.10° W.; ascend.
39.80	Set a sandstone, 20x12x10 ins., 15 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; from which A white pine, 5 ins. diam., bears N.70° E., 40 lks. dist., marked $\frac{1}{2}$ S.19, B.T. A white pine, 8 ins. diam., bears S.10° W., 10 lks. dist., marked $\frac{1}{2}$ S.30, B.T.
62.00	Mormon ridge, 800 ft. above canon, bears N.20° E. and S. 20° W.; descend.
79.80	The cor. of secs. 19, 20, 29, and 30. Land, mountainous. Soil, sandy and gravelly; 3rd rate. Timber, pine and aspen. Undergrowth, oak and deer brush. Good grass for grazing. Mountainous land, 79.80 chs.

July 27, 1901.

Subdivision of T.18 S., R.20 E.-Continued.

Chains	<p>July 29, 1901: At 7 h 3 m a.m., l.m.t., I set off $39^{\circ} 14'$ N., on the lat. arc; $18^{\circ} 52' N.$, on the decl. arc; and determine a true meridian, with the solar, at the cor. of secs. 19, 20, 29, and 30.</p> <p>Thence I run N.$0^{\circ} 03' W.$, bet. secs. 19 and 20.</p> <p>Over mountainous land; through dense aspen saplings and scattering timber; ascend.</p> <p>16.00 Top of ridge, 200 ft. above sec. cor., bears E. and W.; descend.</p> <p>25.00 Bottom of hollow, 100 ft. below ridge, course E.; ascend.</p> <p>40.00 Set a sandstone, 18x14x10 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; from which</p> <p style="padding-left: 40px;">A pine, 24 ins. diam., bears S.$40^{\circ} E.$, 50 lks. dist., marked $\frac{1}{4}$ S. 20, B.T.</p> <p style="padding-left: 40px;">A pine, 8 ins. diam., bears W., 40 lks. dist., marked $\frac{1}{4}$ S. 18, B.T.</p> <p>52.25 Mormon ridge, 300 ft. above hollow, bears N.E. and S.W.; descend.</p> <p>80.00 Set a sandstone, 22x12x8 ins., 16 ins. in the ground, for cor. of secs. 17, 18, 19, and 20, marked with 3 notches on S. and 5 notches on E. edges; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.</p> <p>Land, mountainous.</p> <p>Soil, sandy loam and gravelly; 2nd and 3rd rate.</p> <p>Timber, pine and aspen.</p> <p>Undergrowth, aspen saplings.</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense undergrowth.</p> <p>80.00 chs.</p> <hr/> <p>East, on a random line bet. secs. 17 and 20.</p> <p>40.00 Set temp. $\frac{1}{4}$ sec. cor.</p>
--------	--

Subdivision of T.18 S., R.20 E.-Continued.

Chains	
80.00	Intersect N. and S. line, 5 lks. S. of the cor. of secs. 16, 17, 20, and 21. Thence I run S. 89° 58' W., on a true line bet. secs. 17 and 20. Over mountainous land; through scattering timber and scattering undergrowth; descend..
6.00	Creek, 3 lks. wide, 2 ins. deep, in canon, 10 ft. below sec. cor., course N. 80° E.; ascend .
22.50	Top of ridge, 300 ft. above canon, bears N. and S.; des- cend .
38.00	Creek, 2 lks. wide, 2 ins. deep, on bottom of hollow, 300 ft. below ridge, course S. 30° E.; ascend .
40.00	Set a sandstone, 24x12x7 ins., 18 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; from which An aspen, 4 ins. diam., bears N., 5 lks. dist., marked $\frac{1}{2}$ S. 17, B.T. A pine, 6 ins. diam., bears S. 80° E., 13 lks. dist., marked $\frac{1}{2}$ S. 20, B.T.
70.00	Top of Mormon ridge, 400 ft. above hollow, bears N. and S.; descend .
80.00	The cor. of secs. 17, 18, 19, and 20. Land, mountainous. Soil, sandy and gravelly; 3rd rate. Timber, pine and aspen. Undergrowth, aspen saplings and oak. Good grass for grazing. Mountainous land, 80.00 chs.
40.00	N. 89° 55' W., on a random line bet. secs. 18 and 19. Set temp. $\frac{1}{2}$ sec. cor.
79.98	Intersect W. bdy. of Tp., 10 lks. S. of the cor. of secs. 13, 18, 19, and 24, heretofore described. Thence I run S. 89° 51' E., on a true line bet. secs. 18 and 19.

Subdivision of T.18 S., R.20 E.-Continued.

Chains Over mountainous land; through scattering undergrowth and scattering timber; descend .

16.00 Creek, 3 lks. wide, 5 ins. deep, in bottom of canon, 500 ft. below sec.cor., course N.20° E.; ascend .

27.50 Top of ridge, 600 ft. above canon, bears N.20° E. and S.20° W.; descend .

39.98 Set a sandstone, 18x10x6 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on N.face; and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N.of cor. Pits impracticable.

67.00 Creek, 6 lks. wide, 3 ins. deep, rapid current , in bottom of Pioche Canon, 700 ft. below ridge, course N.30° E.; ascend .

79.98 The cor.of secs.17,18,19, and 20.

Land, mountainous.

Soil, sandy loam and gravelly; 2nd and 3rd rate.

Timber, pine and aspen..

Undergrowth, sage brush and oak and aspen saplings.

Good grass for grazing.

Mountainous land, 79.98 chs.

July 29, 1901: At this cor. I set off 18° 48' N., on the decl.arc; and at 0 h 2 m p.m., l.m.t., observe the sun on the meridian, the resulting lat. is 39° 15' N.

N.0° 03' W., bet. secs. 17 and 18.

Over mountainous land, through dense aspen saplings and scattering timber; descend .

22.75 Creek, 6 lks. wide, 3 ins. deep, rapid current, in bottom of Pioche Canon, course N.E.; ascend .

40.00 Set a sandstone, 16x10x8 ins., 11 ins. in the ground, for $\frac{1}{2}$ sec.cor., marked $\frac{1}{2}$ on W.face; from which

A pine, 24 ins. diam., bears N.40° W., 30 lks.

dist., marked $\frac{1}{2}$ S. 17, B.T.

A pine, 24 ins. diam., bears N.80° W., 30 lks.

dist., marked $\frac{1}{2}$ S.18, B.T.

Subdivision of T.18 S. R.20 E.-Continued.

Chains

.48.00 Top of ridge, 100 ft. above $\frac{1}{4}$ sec.cor., bears E. and W.; descend.

,80.00 Set a sandstone, 20x12x8 ins., 15 ins. in the ground, for cor. of secs. 7, 8, 17, and 18, marked with 4 notches on S. and 5 notches on E. edges; from which

A pine, 10 ins. diam., bears N. 40° E., 60 lks. dist., marked T.18 S., R.20 E., S.8, B.T.

A pine, 12 ins. diam., bears S. 40° E., 30 lks. dist., marked T.18 S., R.20 E., S.17, B.T...

A pine, 9 ins. diam., bears S. 70° W., 70 lks. dist., marked T.18 S., R.20 E., S.18, B.T.

A pine, 7 ins. diam., bears N. 80° W., 60 lks. dist., marked T.18 S., R.20 E., S.7, B.T.

Land, mountainous.

Soil, sandy and gravelly loam; 2nd rate.

Timber, pine and aspen.

Undergrowth, sage and oak brush and aspen saplings.

Good grass for grazing.

Mountainous land, or land covered with dense undergrowth, 80.00 chs.

E. $89^{\circ} 58' E.$, on a random line bet. secs. 8 and 17.

40.00 Set temp. $\frac{1}{4}$ sec.cor.

79.92 Intersect N. and S. line, at the cor. of secs. 8, 9, 16, and 17.

Thence I run

S. $89^{\circ} 58' W.$, on a true line bet. secs. 8 and 17.

Over mountainous land; through dense undergrowth and scattering timber; descend.

5.00 Bottom of hollow, 50 ft. below sec.cor., course N. 80° E.; ascend.

36.00 Top of Mormon Ridge, 500 ft. above hollow, bears N. and S.; descend.

39.96 Set a sandstone, 20x10x5 ins., 15 ins. in the ground, for

Subdivision of T.18 S., R.20 E.-Continued.

Chains	<p>$\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; from which</p> <p>An aspen, 6 ins. diam., bears N.60° E., 200 lks.</p> <p>dist., marked $\frac{1}{4}$ S.8, B.T.</p> <p>An aspen, 8 ins. diam., bears S.50° E., 260 lks.</p> <p>dist., marked $\frac{1}{4}$ S.17, B.T.</p>
68.00	Foot of descent, 800 ft. below ridge, bears N. and S.; enter bottom of Pioche canon.
70.00	Creek, 3 lks. wide, 2 ins. deep, in bottom of Pioche canon, course N.
71.60	Leave canon bottom, bears N. and S.; ascend.
79.92	<p>The cor.of secs. 7,8,17, and 18.</p> <p>Land, mountainous.</p> <p>Soil, sandy loam and gravelly; 2nd and 3rd rate.</p> <p>Timber, pine and aspen.</p> <p>Undergrowth, oak, aspen saplings and sage brush.</p> <p>Good grass for grazing.</p> <p>Mountainous land, or land covered with dense undergrowth, 79.92 chs.</p>
	N. $89^{\circ} 51'$ W., on a random line bet.secs. 7 and 18.
40.00	Set temp. $\frac{1}{4}$ sec.cor.
80.10	<p>Intersect W.bdy.of Tp., 25 lks.S. of the cor.of secs.</p> <p>.7,12,13, and 18, heretofore described.</p> <p>Thence I run</p> <p>S.$89^{\circ} 40'$ E., on a true line bet.secs. 7 and 18.</p> <p>Over mountainous land; through dense undergrowth and scattering timber; ascend.</p>
13.75	Top of divide ridge between Pioche and Hill Creek canons, bears N. and S.; trail T.O. Thompsons; descend.
40.10	<p>Set a sandstone, 18x10x5 ins., 12 ins. in the ground, for</p> <p>$\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face; from which</p> <p>An aspen, 5 ins. diam., bears N.30° W., 120 lks.</p> <p>dist., marked $\frac{1}{4}$ S.7, B.T.</p> <p>An aspen, 5 ins. diam., bears S.20° W., 65 lks.</p> <p>dist., marked $\frac{1}{4}$ S.18, B.T.</p>

Subdivision of T.18 S., R.20 E.-Continued.

Chains	
70.00	Creek, 3 lks. wide, 4 ins. deep, in canon, 500 ft. below ridge, course N.E.; ascend.
79.90	Top of ridge, 400 ft. above canon, bears N.E. and S.W.; descend.
80.10	The cor. of secs. 7, 8, 17, and 18. Land, mountainous. Soil, sandy loam and gravelly; 2nd and 3rd rate. Timber, pine and aspen. Undergrowth, oak, maple, and aspen saplings. Good grass for grazing. Mountainous land, or land covered with dense undergrowth, 80.10 chs.

July 29, 1901.

July 30, 1901:	At 7 h. 4 m a.m., l.m.t., I set off $39^{\circ} 16' N.$, on the lat. arc; $18^{\circ} 38' W.$, on the decl. arc; and determine a true meridian, with the solar, at the cor. of secs. 7, 8, 17, and 18.
Thence I run	
N. $0^{\circ} 03' W.$, bet. secs. 7 and 8	Over mountainous land, through dense undergrowth and scattering timber; ascend.
0.25	Top of ridge, bears N.E. and S.W.; descend.
10.00	Creek, 3 lks. wide, 3 ins. deep, in bottom of canon, 100 ft. below ridge, course N. $80^{\circ} E.$; ascend.
40.00	Set a sandstone, 18x10x5 ins., 12 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face; from which
	A pine, 12 ins. diam., bears N. $45^{\circ} E.$, 125 lks. dist., marked $\frac{1}{2}$ S. 8, B.T.
	A pine, 10 ins. diam., bears S. $30^{\circ} W.$, 75 lks. dist., marked $\frac{1}{2}$ S. 7, B.T.
46.00	Top of ridge, 300 ft. above canon, bears E. and W.; descend.
80.00	Set a sandstone, 18x14x5 ins., 12 ins. in the ground,

Subdivision of T.18 S., R.20 E.-Continued.

- Chains for cor.of secs.5,6,7, and 8,marked with 5 notches on S. and 5 notches on E.edges;from which
- An aspen,5 ins.diam.,bears N. 50° E.,75 lks.
dist.,marked T.18 S.,R.20 E.,S.5,B.T.
- An aspen,5 ins.diam.,bears S. 65° E.,25 lks.
dist.,marked T.18 S.,R.20 E.,S.8,B.T.
- A pine,16 ins.diam.,bears S. 45° W.,10 lks.
dist.,marked T.18 S.,R.20 E.,S.7,B.T.
- A pine,30 ins.diam.,bears N. 80° W.,10 lks.
dist.,marked T.18 S.,R.20 E.,S.6,B.T.
- Land,mountainous.
- Soil,sandy loam and gravelly;2nd and 3rd rate.
- Timber,pine and aspen.
- Undergrowth,aspen sappling and oak.
- Good grass for grazing.
- Mountainous land,or land covered with dense under-growth,80.00 chs.
- N. $89^{\circ} 58'$ E.,on a random line betsecs.5 and 8.
- 40.00 Set temp. \pm sec.cor.
- 80.12 Intersect N.and S.line,7 lks.S.of the cor.of secs. 4,5,8, and 9.
- Thence I run
 $S.89^{\circ} 55'$ W.,on a true line betsecs.5 and 8.
- Over mountainous.land;through scattering pine and aspen timber and dense undergrowth;ascend .
- 20.00 Top of Mormon Ridge,200 ft.above sec.cor.,bears N.and S.;Descend .
- 40.00 Set a sandstone,20x10x5 ins.,15 ins.in the ground, for \pm sec.cor.,marked \pm on N.face;from which
- An aspen,4 ins.diam.,bears N. 45° E.,6 lks.
dist.,marked \pm S.5,B.T.
- An aspen,4 ins.diam.,bears S. 20° E.,53 lks.
dist.,marked \pm S.8 ,B.T.
- 50.00 Foot of descent,800 ft.below ridge,bears N.and S.;

Subdivision of T.18 S., R.20 E.-Continued.

- | | |
|--------|---|
| Chains | enter bottom of Pioche Canon. |
| 61.00 | Creek, 4 lks. wide, 3 ins. deep, in canon, course N. |
| 64.80 | Leave canon bottom, bears N. and S.; ascend... |
| 80.12 | The cor. of secs. 5, 6, 7, and 8.

Land, mountainous.

Soil, sandy loam and gravelly; 2nd and 3rd rate.

Timber, pine and aspen.

Undergrowth, aspen saplings, oak and deer brush.

Good grass for grazing.

Mountainous land, or land covered with dense undergrowth, 80.12 chs. |
| <hr/> | |
| 40.00 | N. $89^{\circ}40'W.$, on a random line bet. secs. 6 and 7.

Set temp. $\frac{1}{2}$ sec. cor. |
| 79.96 | Intersect W. bdy. of Tp., . . . at : the cor. of secs. 1, 6, 7, and 12, heretofore described.

Thence I run

S. $89^{\circ}40'E.$, on a true line bet. secs. 6 and 7 .

Over mountainous land; through dense undergrowth and scattering timber ; ascend . |
| 23.50 | Top of divide ridge, between Pioche and Hill Creek canons, 250 ft. above sec. cor., bears N. and S.; descend . Trail to Thompsons: bears N. and S. |
| 39.90 | Set a sandstone, 16x8x8' ins., 11 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on N. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable. |
| 47.00 | Creek, 4 lks. wide, 3 ins. deep, in canon, 300 ft. below ridge, course N.; ascend . A spring bears. S. $10^{\circ}W.$ 13.00 chs. |
| 56.50 | Top of ridge, 300 ft. above canon, bears N. $10^{\circ}E.$ and S. $10^{\circ}W.$; descend. . |
| 79.96 | The cor. of secs. 5, 6, 7, and 8.

Land, mountainous.

Soil, sandy loam and gravelly; 2nd and 3rd rate.

Timber, pine and aspen .

Undergrowth, oak , deer brush , and aspen sapplings. |

Subdivision of T.18 S., R.20 E.-Continued.

Chains Good grass for grazing.

Mountainous land, or land covered with dense undergrowth, 19.96 chs.

July 30, 1901: At the noon hour the sky is overcast and solar observations are impossible.

N.0°03'W., on a random line bet. secs. 5 and 6.

40.00 Set temp. & sec. cor.

80.40 Intersect N.bdy. of Tp., at the cor. of secs. 5, 6, 31, and 32, heretofore described.

Thence I run

S.0°03'E., on a true line bet. secs. 5 and 6.

Over mountainous land, through scattering undergrowth and scattering timber; descend.

5.00 Creek, 3 lks. wide, 2 ins. deep, in canon, 50 ft. below sec. cor., course N.30°E.; ascend.

32.50 Top of ridge, 300 ft. above canon, bears N.30°E. and S. 60°W.; descend.

40.40 Set a sandstone, 18x14x4 ins., 12 ins. in the ground, for a sec. cor., marked \pm on W. face; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

56.50 Bottom of hollow, 400 ft. below ridge, course E.; ascend.

74.25 Top of ridge, 250 ft. above hollow, bears E. and W.; descend.

79.90 Bottom of hollow, 100 ft. below ridge, course E.; ascend.

80.40 The cor. of secs. 5, 6, 7, and 8.

Land, mountainous.

Soil, sandy and gravelly; 3rd rate.

Timber, pine, aspen, cedar, and pinon pine.

Undergrowth, oak and sage brush.

Good grass for grazing.

Mountainous land, 80.40 chs.

July 30, 1901.

Subdivision of T.18 S., R.20 E.-Continued.

General Description.

This township is all mountainous. The soil ranges from rich black loam to rocks; the soil of the bottoms of the canons and where heavy timber grows is generally rich black loam, 1st rate, and the remainder of the township is mostly sandy and gravelly loam, 2nd rate. There is some good farming land along the bottom of Willow Creek Canon.

The township is well watered by Willow Creek, Sheep Creek, and Pioche Creek and numerous springs.

The township is well timbered; containing aspen, white pine, red pine, and long leaf pine.

The entire township is covered with an abundant growth of rich and nutritious grasses and is very well adapted for grazing purposes.

There is no mineral in the township.

H.G. Ballard has a cabin and corral and other improvements in sec. 16 not seen from any of my lines.

There is a cabin in sec. 36 (claimant unknown).

There is a corral in sec. 21, not seen from line, said to belong to H.G. Ballard.

Andrew J. Stewart Jr.
U.S. Deputy Surveyor.

BLANK

PAGE

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by _____, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of _____ showing the respective capacities in which they acted:

S. J. S. 165. 1/19
Chairman.

Chairman.

Moundman.

Moundman.

Arman.

Arman.

Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted _____, United States Deputy Surveyor, in surveying all those parts or portions of the _____

of the _____

meridian, _____ of _____, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for _____

Chairman.

Chairman.

Moundman.

Moundman.

Arman.

Arman.

Flagman.

Subscribed and sworn to before me this _____

day of _____, 189 }



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, _____, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from _____, bearing date of the United States Surveyor General for _____, day of _____, 189_____, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for _____, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____.

..... of the
meridian, in the of which are represented in the
foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly
swear that all the corners of said survey have been established and perpetuated in strict accordance with
the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor
General for and in the specific manner described in the field notes, and that
the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer
the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

United States Deputy Surveyor.

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 189 }



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, March 19, 1903, 1893
The foregoing field notes of the survey of the ~~standardized~~ series of
Township 15 South Range 90 East of the Salt Lake
Base & Meridian, U. S. A.

executed by *Archibald Stevens Jr.*
under his contract No. *243*, dated *April 19, 1901*, 189, having been
critically examined, and the necessary corrections and explanations made, the said field notes, and the
surveys they describe, are hereby approved.
E. M. R. [Signature]

Edward M. Purcell
United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____
has been correctly copied from the original notes on file in this office.

United States Surveyor General.